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ABSTRACT

This paper by the World Bank, divided into three major sections, analyzes world wide trends in educational development. It states that educational systems in developing countries are all too often ill-conceived and are not adapted to developmental needs. The first section describes worldwide trends in educational development during the period from 1950 to 1970. The second section summarizes the state of education throughout the world at the beginning of the 1970's and sets forth issues and problems that confront developing nations. Five basic issues are discussed which include the development of skills and their relevance, mass participation in education and development, education and equity, increasing efficiency, and improving management and planning. The third section deals with the educational lending policies and programs of the World Bank and the International Development Association. Part one of the third section outlines the bank's policy and activities from 1963-1974. Part two outlines the objectives of the bank in lending for education. Part three discusses the bank's current lending programs, future possibilities, and problems developing from the policies. (DE)

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World Bank
December 1974

FOREWORD

Developing countries have greatly expanded their educational systems over the past quarter of a century. But much of the expansion has been misdirected. The results are seen in one of the most disturbing paradoxes of our time: while millions of people from among the educated are unemployed, millions of jobs are waiting to be done because people with the right education, training and skills cannot be found.

Ever since the World Bank decided to enter the field of educational development in 1962, its aim has been basically one: to help developing countries reform and expand their educational systems in such a way that the latter may contribute more fully to economic development. The efforts and experience of the earlier years were reviewed in the first Education Sector Working Paper published in September 1971.

The present paper takes a fresh look at the problem. It states convincingly that educational systems in developing countries are all too often ill-conceived and are not adapted to their developmental needs. The educational policies themselves are not always at fault; they have tended to serve only too well the basically irrelevant development strategies they were supposed to uphold and sustain. These overall development strategies have come under close scrutiny in recent years. Today, government leaders and economists alike increasingly believe that to the developmental goal of economic growth must be added social dimensions without which the mass of the people cannot achieve a fuller, happier and more productive life.

Among the questions this paper raises, and attempts to answer, are: How can educational systems be reshaped to help the poorest segments of society? How can education contribute to rural development, and thus respond to the needs and aspirations of the vast majority of the poor living in the villages? How can educational opportunities be made more equal in order to promote social mobility in countries where educational systems have hitherto favored the urban dwellers and the relatively rich?

Rapid population growth, together with the misallocation of educational resources, has led to an increase in the number of illiterates in developing countries around the world. It is estimated that, if the trend continues, the number of illiterates will increase to 865 million by 1985. This disturbing phenomenon threatens not only the more equitable distribution of the benefits of development; it threatens development itself. This paper explores, therefore, how low-cost functional education can enable the poor to participate more effectively in the development process.

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We recognize the prospect that not many countries may undertake soon the radical changes that are necessary. But we are encouraged by the fact that a small, though growing, number of countries have begun to look squarely and objectively at their total educational systems in terms of both internal and external efficiency.

The World Bank stands ready to help those countries which look and do not like all that they see. The most important service the Bank can render its borrowers is to help them in the diagnosis of their problems and provide assistance in solving them. Relevant lending programs and projects can be conceived only through a dialogue conducted between the Bank and its borrowers at the policy making level. This dialogue can best be conducted through sector studies, some of which may be undertaken with the help of the Bank, but most of which, I hope, will come from the developing countries themselves.

In the five year period 1974-78, the World Bank and its affiliate, the International Development Association, intend to increase their support for educational development. They will do so in the conviction:

- *that every individual should receive a basic minimum education as soon as financial resources and the priorities of development permit;*
- *that skills should be developed selectively in response to specific and urgent needs, by training the right people, both urban and rural, for the right jobs—both in the modern and traditional sectors;*
- *that educational policies should be formulated to respond flexibly to the need to develop educational systems (nonformal, informal, and formal), so that the specific requirements of each society might be met; and*
- *that opportunities should be extended throughout an educational system for those underprivileged groups who have been thwarted in their desire to enter the mainstream of their country's economic and social life. This must include more equitable access to education for the poor, the ill-fed, women, and rural dwellers, and must provide, as well, a better chance to advance from the classroom to the place of work.*

If economic progress is to be rapid and equitable, education will need to be supported by action in other fields such as agriculture, health, nutrition, and employment. Only in such a context can education be effective in strengthening the potential of those developing nations which wish to ensure productive participation by all in the development process.

Robert S. McNamara
President, World Bank Group

December 1974

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SUMMARY

This paper consists of three parts. The first part describes worldwide trends in educational development during the period from 1950 to 1970. The second part summarizes the state of education throughout the world at the beginning of the 1970's, and sets forth issues and problems which confront developing countries, together with different policies which might enter into their development strategies. The third part deals with the education lending policies and programs of the World Bank and the International Development Association (IDA).[1]

After rapid progress from 1950 to 1965, there has been a slowdown in the rate of educational expansion. This decline in enrollment increases, which coincides with the peaking of the population surge at the school levels, will be felt until the mid-1980's. It could lead to stagnation in the progress toward universal education. In a number of poorer countries, where already tight financial constraints have been made more severe by recent economic events, larger numbers and proportions of people would be left without even a minimum education.

Education systems have been irrelevant to the needs of developing countries during the last two decades because education policies were often keeping company with overall development strategies which were themselves irrelevant to the societies and conditions of developing countries. Emphasis on the development of the modern economic sector, providing employment to a small and intensively trained elite, leads to the neglect of the 60-80% of the population living in sectors characterized by traditionally lower productivity. Consequently, a large part—often more than 50%—of the resources is devoted to secondary and higher education, although the student enrollment at those levels is generally less than 20% of the total. Despite the substantial progress realized in both general development and education during these decades, the bright hopes of the early years are far from being realized.

The growing realization that equitable income distribution is not an automatic corollary of growth has helped turn attention to a development strategy which is directed to sharing the benefits of growth as well as to growth itself. Such a strategy, based on a different deployment of scarce capital throughout the economy, means a fuller use of available human resources—particularly in traditional and tran-

[1] *All references to the World Bank in this paper are to be deemed to refer also to the International Development Association, unless the context requires otherwise. The fiscal year (FY) of the two institutions runs from July 1 to June 30.*

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sitional sectors of the economy. A broadening of development objectives implies that education also needs to adapt itself to the needs of people living in these sectors. A major implication is emphasis on mass education to ensure that all receive education and training of some kind as soon as resources permit and to the extent that the course of development requires. This perspective sets the framework for the analysis of the major issues facing education systems and the choices of policy to be considered.

Five basic issues are discussed, together with related policies:

(a) Development of Skills and their Relevance

The importance of educational credentials in getting access to wage employment generates social pressures for the expansion of formal education beyond the absorptive capacity of the modern sector. This increases the demand for increasingly higher levels of schooling, and distorts the content of education by making each cycle only a step toward the next. Education systems thus become dysfunctional, both for the economy and for the large majorities of school leavers.

Measures suggested to deal with the problems in the modern sector include increasing the demand for educated manpower, adapting education to job requirements, rationing secondary and higher education and changing the pattern of demand for education through suitable pricing. These measures require coordination of education, employment and labor market policies and cooperation of employers. A different set of recommendations for the rural sector includes an increasing emphasis on rural subjects in formal schools, development of nonformal schemes as parallel or alternative programs, and functional literacy schemes. Whatever the particular form adopted, rural education and training schemes should be designed as functional programs, integrated into the broader system of education and coordinated with other sectoral activities in the rural scene. Training management personnel for rural programs is of high priority.

(b) Mass Participation in Education and Development

In spite of the considerable efforts made by the developing countries, about half of their citizens, children and adults alike, are without a minimum level of education; and the prospects for the next decade are not promising. There will be significant increases in the total numbers of out-of-school children and illiterate adults if no remedial action is taken.

The provision of a minimum education is an essential condition for the effective participation of the masses in the development process. Low-cost, functional, mass education is required. In countries

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with high primary enrollment ratios, mass education can be provided by the primary schools, supplemented by schemes designed to reach non-educated youths and adults. For poor countries facing serious problems in expanding primary enrollment, the concept of basic education is proposed as a more adequate approach to provide minimum learning packages. This could be effected by changes in the structure of the formal system as well as by parallel and complementary schemes. Such schemes, open to various age groups, would offer programs of varying content and length adapted to the different groups' needs, with corresponding changes in the training and the role of teachers. Despite the controversy around the issue of "duality", financial constraints may compel some of the poorest countries to adopt this approach if they are to meet the minimum learning needs of the masses within a reasonable time.

(c) Education and Equity

Educational systems and policies have a regressive character which favors urban populations and middle- and upper-income groups. These groups, therefore, have a definite advantage in terms of access to, and promotion within, the systems.

Equalizing opportunities for access to education is a necessary, but not sufficient, condition to ensure social mobility through education. Providing equal chances for achievement, both in and after school, is a more difficult objective, as factors which cannot be affected by educational policies play a significant role. Opportunities may be equalized somewhat by appropriate methods of selection and promotion, such as "quota systems" or by improvements in the methods of educational finance. As a whole, however, equity through education can be achieved only within the context of broader social policies.

(d) Increasing Efficiency

Education systems are inefficient in using resources and often do not achieve their quantitative and qualitative goals. Failure to define objectives is a principal source of waste. The shortage of good teachers and the design and efficient use of learning materials are other major problems. Malnutrition and related illnesses also affect the performance of students. All these inefficiencies are first reflected in high dropout and repeater rates. In a number of countries, one-fourth of the education budget is spent on students who drop out before reaching Grade 4 without having received any lasting benefit from education.

Better specification of the education and training objectives and performance standards is a first step which needs to be followed by

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the identification of factors most likely to affect efficiency. These include a number of school-related factors (methods of teaching and promotion, language of teaching) as well as non-school factors (poor health, family income). Most measures to improve quality have serious implications for costs. It is important, therefore, to explore areas in which costs may be reduced. Recent research indicates possibilities for savings, for example, by some changes in class sizes. (It is now believed that class size may not be as closely associated with the quality of education as has been traditionally assumed.)

(e) Improving Management and Planning

New policies mean new challenges for educational management and planning. An inability among political decision makers and education managers to communicate with each other is a major source of confusion about objectives and programs.

A wider approach to planning is needed as the conventional practices, based on manpower and rates of return analysis, are inadequate to deal with the issues of broadly conceived education policies. "Cohort analysis" is suggested as an aid to planning. New education policies will require substantial changes in the organization and structure of education systems, improvement in methods of educational finance and, finally, an adequate flow of information and research for use in management.

The Bank's Program

A basic premise in the discussion of lending for education is that the World Bank's operations in this sector should reflect its overall policies. Those policies include an increasing concern with the problems and needs of low-income countries and the promotion of development strategies to improve the well-being of the lower 40% of the population through increased productivity and employment and improved income distribution. But these new features of Bank policy should not obscure the fact that the Bank will continue to assist countries which have moved to higher levels of development.

The following principles will govern the Bank's effort to promote balanced educational development:

(a) There should be at least a minimum basic education for all, as fully and as soon as available resources permit.

(b) Further education and training beyond the basic level should be provided selectively to improve, both quantitatively and qualitatively, the knowledge and skills necessary for the performance of economic, social and other developmental roles.

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(c) A national education system should be viewed as a comprehensive system of learning embracing formal, nonformal and informal education, all working with maximum possible internal and external efficiency.

(d) In the interests of both increased productivity and social equity, educational opportunities should be equalized as fully as possible.

A flexible response, adjusted to the variety of conditions in developing countries, will guide the Bank's activities in education. The differences between the lower-income countries and the relatively more developed ones will determine the proportion or "mix" of different areas and kinds of assistance. In the poorer countries, basic education and rural training are expected to receive emphasis, together with selective support for the further development of skills. The development of second and third levels of education would take a more central place in the education strategies of the middle- and higher-income countries.

Basic Primary Education. The Bank's interest in basic education is closely related to its efforts to promote a broader approach to development. In countries where mass education can be achieved through the expansion of the primary system, the Bank will give particular attention to curriculum and other reforms which take into account the needs of the many who will not continue beyond the primary cycle. A review and revision of education structures will be encouraged to provide low-cost, minimum, mass education in poor countries with low primary school enrollment ratios. A variety of programs for youths and adults will also be supported as a follow-up or, when necessary, as an alternative to primary education.

Development of Skills. Assisting the borrower in meeting the need for critical skills for economic development continues to be a major objective. The Bank will continue to assist not only training institutions, but also educational systems as a whole. Project-related training is another method increasingly used by the Bank to meet requirements for skills in specific areas. It is expected that during the period from 1974 to 1978, training components in other than education lending, together with school construction in urban and rural development projects, will total about $350 million.

Efficiency. Effective and cost-conscious management, together with internal and external efficiency, will receive continuous attention throughout all phases of the dialogue with borrowers. Particular emphasis will be placed on policies which can be more directly linked with the Bank's lending operations.

Equity. Equity will be used as a criterion in all Bank operations. In its analysis of education systems and policies, the Bank will be con-

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cerned with such questions as where the funds go, who benefits most and who pays. Information on specific target groups will be sought during project identification and design to assess the equity of education programs. More specifically, a guidance and monitoring system will be developed to determine the beneficiaries of education projects.

Will developing countries be willing to accept the kind of general and specific policies suggested in this paper? What might the Bank do to encourage their receptiveness? Experience suggests that relatively few countries will undertake the radical changes which many consider necessary. At the same time, there is a growing recognition that significant changes are needed and an increased willingness to consider selective proposals for reform. Awareness of financial constraints may be a powerful inducement for change. If this is so, in some countries the unfavorable effects of the recent economic changes may encourage a critical and objective review of existing educational systems. Sector studies, carried out by the countries themselves, are major vehicles through which the critical issues raised in this paper may be tackled. The Bank will assist an increasing number of these, both financially and technically.

What are the risks involved in these policies? Will countries have sufficient managerial capacity to carry them out? It must be acknowledged that the risks involved in highly innovative action are substantial for the Bank and even more so for the borrowers, especially in such uncharted areas as rural- and poverty-oriented policies. But when the effects of continuing to neglect to act are foreseen as being more costly, a prudent but active course seeking to identify and minimize risks should be preferred. Improving management is, of course, a major priority.

Do the Bank's current policies, procedures and lending programs give effect to the direction and proposals put forth in this paper? How should they be changed or improved? The allocation of $1,075 million (in constant prices) covering 80 projects proposed in the lending program for 1974-78 is reasonable in view of the rapid expansion of education lending in recent years and the experimental nature of some of the new emphases in lending. This program would permit the necessary "tooling up" for a substantial expansion beginning in about 1978. The distribution of lending by areas (a substantial increase of up to 27% for primary/basic education and a proportional decrease for intermediate and higher education) reflects the new directions in policy. The Bank is making every effort to ensure that an equitable distribution—both inter-country and intra-country—in its lending activities will occur.

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Implementation of the policies and programs proposed will require greater use of flexible procedures which already exist in the Bank but have not been fully utilized in the education sector. In order to give momentum to experimentation in such areas as basic education, the Bank can lend an appropriate part of the total costs of an experiment—both capital and operational—over a stated period of time. The capital and operational costs of training teachers and administrators should be financed by the Bank to ensure the development of an adequate human infrastructure for educational change.

The Bank's lending operations in any sector are part of a continuing relationship with its member countries which is rooted in agreement on an overall development strategy and on individual sectoral strategies such as education. Such strategies take their direction from the country's own definition of its developmental objectives and aspirations. In the context of a constructive dialogue with each of its borrowers, the Bank desires to contribute to policy making by clarifying the choices that its member countries face. Through such a dialogue, it is hoped that there may emerge for each country a unity of purpose and plan between it and the Bank.

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TRENDS IN EDUCATION AND DEVELOPMENT TO 1970

The first World Bank Education Sector Paper of 1971 noted the effect on educational expansion since 1950 of the movement for political independence, the quickening pace of economic development and the population explosion. These three forces continue at work, although the rate of educational expansion has slackened since the late 1960's. Throughout the expansion period of the 1950's and 1960's, there had been increasing concern in developing countries about the relevance of the education which was being widely replicated and the quality of learning provided by the largely borrowed, formal school systems.

In addition to the continuing concern for relevance and quality, there is now the problem that the decline in enrollment increases (for reasons of financial constraint, difficulty in reaching rural populations, and perhaps disenchantment with the benefits of formal education) coincides with the peaking of the population surge at the school-age levels. Until the mid-1980's, when some relaxation is expected, the population pressure will manifest itself most sharply in the large number of children between the ages of 6 and 15. As a consequence, there is a prospect not only of stagnation in progress toward universal education, but even of a retrogression which would leave larger numbers and proportions of the populations of many countries without even a minimum education.

In a number of developing countries, the already tight financial constraints have been made more severe by the changes in the world economy associated with rapid increases in petroleum prices and other movements in the terms of trade. The World Bank estimates that 800 million people—whose per capita incomes average less than $200 per year—are likely to receive a severe setback. These are the people of the poorest countries, where education enrollment ratios, like other social indices, are still low and where rural populations are least affected by development forces. For them, the "setback" in education could be severe.

The challenge posed by these circumstances is heightened by changes in the definition of development itself during recent years. Questions of employment, environment, social equity and, above all, participation in development by the less privileged now share with simple "growth" in the definition of the objectives (and hence the model) of development toward which the effort of all parties is to be directed. These changes have their counterpart in the education sec-

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tor, where the need is being felt for new educational policies responding to new objectives of development.

In general, new educational policies are less a sharp break with the past than a shift in emphasis and a broadening of benefits and beneficiaries. In this sector of limited resources and unlimited demands, we will continue to ask the same questions, namely: Who shall be educated? How? For what? At whose expense? And at what expense?

No single answer to any of these questions will serve for all, or even for several, of the developing countries. We will find similarities among them, and we will explore these common features to discover typologies which might ease the work of analyzing problems and proposing remedies. But either because of the conformation of factors within the education sector, or the relation of education to all other sectors, we continue to see each country as unique, requiring its own individual development strategy.

In recent years, there has been wide discussion—as in the first edition of this paper—about the lack of consistency between educational policies and systems and the development objectives they are assumed to serve. In almost all cases, it has been assumed that it was the educational policy that was irrelevant. It is no longer certain that this was always the case. In many respects, it seems that educational policies were simply keeping company with overall development objectives which were themselves irrelevant to the societies and conditions of developing countries. For this reason, and in search of a broader perspective, we begin this paper with a historical review covering, roughly, the two decades from 1950 to 1970.

For much of the developing world during these two decades, the transcendent event was the achievement of independence. There followed the slow process of nation building which, in many cases, sought to recast the diversity of ethnic, religious and cultural traditions into a new national formulation. And since political independence is more easily achieved than economic or cultural reconstruction, the practices and institutions chosen to replace the existing diversities were frequently those previously established by the colonial powers.

The changes in the political scene of developing countries were expected to be accompanied by a modernization process yielding a general and dramatic rise in the standards of living of the populations concerned. In many cases, the difficulties of transforming a traditional society into a modern one were underestimated. In already independent countries, similar great expectations were awakened. The idea of "catching up with rich countries" exerted a pre-eminent influence on the thinking of the leadership in the developing countries.

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To a certain extent, that idea prevented the leadership from elaborating original and viable models of society for their countries. Perhaps nowhere was this demonstration effect more pervasive and successful in dampening local initiatives to adapt to the socioeconomic realities than in the sphere of education.

Investment in both industry and agriculture tended to flow toward a modern, capital-intensive, export-oriented subsector which provided employment to a relatively small portion of the labor force, the major part of which was either engaged in traditional subsistence farming or suffered increasingly from unemployment. Thus, in both the urban and rural sectors, relatively sophisticated technologies called for more intensive education and training of a small elite working force.

Conversely, the traditional sectors of lower productivity, comprising 60% to 80% of the population, are characterized by their reliance on indigenous resources and little investment. Enterprises are small-scale, often self-employing and family-owned, except in agriculture, where some form of landlord-tenant relationships may persist. The technology of these enterprises is labor-intensive and primitive, requiring ostensibly less education and training.

In their haste to modernize, many developing countries, in collaboration with bilateral and multilateral donors of development aid, focused too sharply on increasing the overall national income, and paid insufficient attention to the equitable distribution of that income, as well as to the social and cultural aspects of development.

Education was considered a major instrument for the political, social, cultural and economic modernization of the developing world in the 1950's and 1960's. Political and cultural leaders were convinced that a well supported, easily accessible educational system was an efficient means to make people politically and socially conscious, and, therefore, active participants in nation building and cultural processes. The education sector was enthusiastically, often simplistically, supported as the major supplier of skills for the economy. The more optimistic expected that education would, of itself, stimulate the creation of jobs and thus generate economic development.

The education systems of developing countries, however, did not offer a good base for national development, either quantitatively or qualitatively. In many developing countries, the system was simply an expansion of that of the former colonial rulers. In countries which have long been independent, such as those in Latin America, tradition still bound the education system to an earlier European model that was no longer an effective instrument for development.

Regional conferences of education ministers, held more than a

decade ago, established quantitative goals which were sometimes over-ambitious and financially unrealistic and which finally were set back by population growth. Nevertheless, they lent support to an unprecedented expansion of school enrollments, as shown in Table 1. As one moves up the ladder from primary through secondary to tertiary education, the net increases in enrollments over the past two decades are impressive. The aggregate increases were 211%, 465% and 511%, respectively. If one divides the decade of the 1960's into two halves, however, a significant pattern emerges. The pattern across all levels shows a decreasing rate of expansion, indicating that the momentum of the first 15 years has weakened.

Table 1

First, Second and Third Level Student Enrollments and Annual Increases in Developing Countries[1]

	1950 Students Millions	1950-60 Annual increases %	1960 Students Millions	1960-65 Annual increases %	1965 Students Millions	1965-70 Annual increases %	1970 Students Millions	1950-70 Aggregate increases %
First level	54.7	+6.4	118.9	+ 6.0	159.6	+4.8	201.4	+211
Second level	7.5	+9.3	18.2	+ 9.9	29.3	+7.6	42.4	+465
Third level	0.9	+8.9	2.1	+12.4	3.7	+8.4	5.5	+511

1. See also Annex I.

During the 1960's, education planners began to take their cue from manpower studies—often crude and superficial—which tended to emphasize the kinds of highly skilled manpower which only secondary and higher education could provide. A large part of education budgets—often more than 50%—was devoted to these levels of formal education, although the number of students in them was generally less than 20% of the total enrollment. An increased number of better educated people were needed. But high percentages of the graduates were in low priority fields (from a developmental point of view), and had no readily employable skills. Thus, in the countries in which the Bank has supported education projects, the median percentage of students in vocational education has been only around 10%, compared with close to 30% in the most developed countries (see Table 3).

In sum, general development strategies and their educational components during this period were more closely related than was commonly supposed. Substantial progress was made in both general development and education. But the bright hopes of the early years were far from being realized. A stagnation in enrollment has occurred.

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In some countries, the original problems remain; and, in most, new problems that are sometimes the consequence of achievement are emerging.

EDUCATION DEVELOPMENT STRATEGY FOR THE 1970's AND BEYOND

Poverty-oriented Development Strategy

Many developing countries are concerned that the relatively high economic growth rates recorded during the last decade have brought little benefits to the poorest strata of society. The growing realization that equitable distribution of income is not an automatic corollary of growth has helped turn attention to development strategies which are directed to the sharing of the benefits of growth as well as to growth itself.

Central to this new approach is the widespread inability of the modern sector of developing economies to make full use of the resources available to it—above all, the human resources. A number of countries, therefore, are considering a strategy based on a different deployment of scarce capital throughout the economy, and a fuller use of available human resources. Translated into development objectives, this means that the creation of productive employment is being recognized as an economic goal as important as the growth rate of gross domestic product (GDP).

Fuller and more productive employment could also mean a more equitable distribution of income to the extent that the main beneficiaries—the unemployed and underemployed—are usually found among the less privileged strata of society. As the overwhelming majority of the very poor are engaged in subsistence farming, a poverty-oriented development strategy assumes that an important proportion of the new productivity will be stimulated in rural areas. Such a change in income patterns would increase the demand for such goods as basic foodstuffs, clothing and low-cost housing—which are usually produced locally (with low import content) by labor-intensive techniques.

A broadening of development objectives also implies that significant changes are needed in educational policies and practices. If education is to contribute to the development of the rural and traditional sectors of the economy, it will have to adapt itself to the needs of these sectors.

An important implication of this expanded development strategy is that mass education will be an economic as well as a social neces-

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sity.[1] Education and training systems will need to be designed to enable the masses that have been unaffected by the growth of the modern sector to participate in the development process as more productive workers—by being able to play their roles effectively as citizens, family members, leaders and members of groups involved in cooperative community action, and in many other ways. This ultimately means that all parts of the population must receive education and training of some kind as soon as resources permit and to the extent that the course of development requires. The benefits of mass education will, of course, be greater when other conditions of development are present. Emphasis on mass education, particularly in rural areas, will first require a better distribution of educational opportunities between geographical areas, between urban and rural regions, between social groups, and between the sexes.

Instances of disproportionate distribution are common. In Kenya, the relative primary school enrollment varies by as much as a factor of nine between provinces. In Colombia, the number of students who successfully complete their primary school education is, relatively, ten times larger in urban schools than in rural schools, mainly because few of the latter provide complete courses. Despite improvements in female enrollments during the 1960's, only 38% of the students in primary schools and 28% of those in secondary schools are girls in the poorest countries. (See Annexes 6-8.) The new emphasis must also take account of diverse learning clienteles and, consequently, of alternative delivery systems. Education cannot be restricted to school-age youths. Other target groups such as adults, and especially women, must be included. Given the diversity of target groups and educational tasks, it would be advisable to make effective use of nonformal and informal education, in addition to the formal school system.

It is evident that the need to respond to poverty-oriented development strategies introduces important new dimensions in education policy.

Major Issues Facing Education Systems

An analysis of the issues facing the less developed countries can be made within a broad perspective, taking into consideration the major objectives of education policies and the critical factors determining the development and functioning of education systems. In this framework, the focal points of discussion will be: (1) formation

[1] *For an analysis of the economic and social role of mass education, see* Redistribution with Growth, *by Hollis Chenery et al, pages 45 and 123. Oxford University Press, 1974.*

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of skills; (2) participation; (3) equity; (4) efficiency; and (5) planning and management.

In attempting to discuss education policies, account should be taken of the variety of conditions observed in different developing societies, including countries with yearly per capita incomes ranging from $70 to $1,500, with populations ranging from less than one million to 500 million, and with literacy rates varying from 5% to over 90%. These countries also differ in social stratification, cultural and political traditions, and physical resources. As a basis for the discussion, some characteristic data and trends are shown and analyzed in Table 2, which relates enrollment ratios to levels of per capita Gross National Product (GNP). Table 3, which follows, elaborates on the variety of conditions found in both developed and developing countries.

There are important conclusions to be drawn from Table 2. Despite the enrollment increases at all levels of education during the 1960's in developing countries, the gap between the poorest and the richest countries has increased at the secondary and tertiary levels. Twenty-five of the poorest countries have increased their enrollments at those levels by 1.0 and 0.1 percentage points, respectively, during the decade. A middle group, including the populous nations of India, Indonesia, Bangladesh and Pakistan, as well as the countries in the $121-750 bracket, have increased their enrollments by approximately 11 and 4 percentage points, while the most affluent countries have increased their enrollments by 25 and 13 percentage points.

Other implications follow from the difference between enrollment ratios at the lower and upper levels of education. Countries in Group I have 43% enrollment in primary and only 5% in secondary education. Thus, in comparison with others, these countries will have to absorb a higher proportion of the primary school leavers in their societies and labor markets. Such facts should be reflected in the curriculum of the first level of education.

Countries in different income categories show significant variations in their expenditure patterns. (This can be clearly seen in Table 4.) The table shows the widening difference between what governments in the poorest and in the richer countries spend for the education of a student. This gap does not reflect differences in the educational profiles of countries, namely, relative proportions of lower and higher levels, as the differences in per student expenditures at primary level are in fact even greater. The table also indicates that, in the poorest countries, there was only a negligible increase in public expenditure

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per student which, if measured in constant prices, corresponds to an actual decline.

In the previous paragraphs, differences between groups of countries were explored. It should be emphasized, however, that wide divergencies also exist between countries in the same income groups, both as regards educational efforts and outcome. Among countries

Table 2

School Enrollment Ratios

Per capita[1] GNP	Number of countries	Total population in 1970 Millions	Enrollment ratios[2] First level 1960	1965	1970	Second level 1960	1965	1970	Third level 1960	1965	1970
I—Up to $120 (excluding India, Indonesia, Pakistan, Bangladesh)	25	168	34	39	43 (31)	4	5	5	0.3	0.3	0.4
India, Indonesia, Pakistan, Bangladesh	4	802	43	56	71 (63)	9	11	18	1.7	2.6	4.3
II—$121-250	23	287	67	79	83 (68)	9	14	19	2.1	3.0	5.6
III—$251-750	38	433	73	83	97 (77)	11	17	25	1.9	3.3	5.3
IV—$751-1,500	9	112	90	93	97 (80)	33	44	49	6.2	8.4	10.5
V—Over $1,500	24	623	100	100	100	58	65	83	17.0	23.7	30.2

[1] Countries in each group are as follows:

I—Afghanistan, Bangladesh, Botswana, Burma, Burundi, Chad, Dahomey, Ethiopia, The Gambia, Guinea, Haiti, India, Indonesia, Lesotho, Malawi, Mali, Nepal, Niger, Nigeria, Pakistan, Rwanda, Somalia, Sri Lanka, Sudan, Tanzania, Upper Volta, Yemen Arab Republic, People's Democratic Republic of Yemen, Zaire.

II—Bolivia, Central African Republic, Cameroon, Equatorial Guinea, Egypt, Ghana, Kenya, Khmer Republic, Republic of Korea, Liberia, Malagasy, Mauritania, Mauritius, Morocco, Philippines, Senegal, Sierra Leone, Swaziland, Thailand, Togo, Tunisia, Uganda, Republic of Vietnam.

III—Algeria, Bahrain, Brazil, Republic of China, People's Republic of Congo, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Fiji, Gabon, Guatemala, Guyana, Honduras, Iran, Iraq, Ivory Coast, Jamaica, Jordan, Lebanon, Malaysia, Mexico, Nicaragua, Oman, Panama, Papua New Guinea, Paraguay, Peru, Portugal, Romania, Saudi Arabia, Syria, Turkey, Uruguay, Yugoslavia, Zambia.

IV—Argentina, Chile, Cyprus, Greece, Singapore, South Africa, Spain, Trinidad and Tobago, Venezuela.

V—Australia, Austria, Belgium, Canada, Denmark, Finland, France, Federal Republic of Germany, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Libya, Luxembourg, Netherlands, New Zealand, Norway, Qatar, Sweden, United Arab Emirates, United Kingdom, United States.

[2] The enrollment ratios have been obtained by dividing the total enrollment at each level with the appropriate age group. These "gross" enrollment ratios are inflated by over-age students. For 1970, it has been possible to exclude the over-age students and estimate "net" enrollment ratios at the first level. The net ratios are indicated in parentheses and show that the over-age students form 10-20% of the total student body at the first level.

in Group I, for instance, Rwanda allocates 10% of its national budget to primary education and has achieved an enrollment ratio of 60%, while Mali allocates 12% of its national budget to the same level, but has a primary school enrollment ratio of only 18%.

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Comparative Education Indicators

Comparative education data are useful in the evaluation of various education systems and the analyses of relative stages of educational development between various countries. However, on the basis of the present data, cross-national comparison should be approached with great caution. Data presented in the following table have been collected largely by World Bank missions from government sources, the remainder are staff estimates or data from Unesco. Efforts have been made to standardize definitions and within limits, to check the accuracy of the data. Nevertheless, such data are still imperfect in several respects and the Bank is working to improve them progressively during its operational work. In the use of these data, the following qualifications should be borne in mind:

1. "Education" as defined in the table, includes all education and training, formal and nonformal.

2. "Primary" education refers to education at the first level and "secondary" education refers to all education at the secondary level regardless of type (e.g. general, technical, agricultural).

3. "Vocational" education (Col. 10) includes enrollments in technical, commercial, agricultural, vocational and home economic courses.

4. "Literacy rates" (Col. 3) are usually obtained from country censuses. In many countries they are only approximations and it is doubtful that any uniform definition of "literate" has been followed consistently.

5. "Public expenditure in education" (Cols. 4 & 8) refers to all capital and recurrent expenditures devoted to education by public and quasi-public agencies.

6. "Enrollment ratios" (Cols. 7 & 8) refer to school year and mean the percentage of eligible children enrolled full-time in the appropriate school (public and private) by level. They are often subject to a wide margin of error in the developing countries owing to variation in the accuracy of basic data (i.e., age-specific population and enrollments). Enrollment figures frequently are higher than the number of students actually in school. Over-age students, whose inclusion is indicated by footnotes also can inflate the ratios.

	Year	Population (Millions) (1)	Per capita GNP at (market prices US$) (2)	Literacy rate (% of Adults) (3)	Public education expenditures per capita (market prices US$) (4)
ADVANCED					
Austria	1970	7.5 G	2 200 G	99	73
Canada	1971	21.6	4 140	98	352
Germany, Fed. Rep.	1971	61.3	3 210	99	149
Japan	1971	105.0	2 130	99	
Netherlands	1971	13.2	2 620	99	216
New Zealand	1971	2.9	2 470	99	110
Norway	1970	3.9 G	3 130 G	99	169
Sweden	1970	8.1 G	4 240 G	99	311
United Kingdom	1970	55.9 G	2 430 G	97	94
U.S.A.	1970	207.1 G	5 160 G	99	253
Europe					
1. Greece	1971	8.9	1 250	82 E	23 E
2. Ireland	1972	3.0 G	1 510 G	98	58
3. Spain	1970	34.0 G	1 100 G	94 D	20
Africa					
1. Algeria	1971	14.4	360	25 B	14 F
2. Cameroon	1970	5.8 G	200 G		6
3. C.A.R.	1970	1.6 G	150 G		5
4. Chad	1970	3.7 G	80 G	7	3 D
5. Congo, P.R.	1970	1.1 G	270 G	50 †	14
6. Ethiopia	1972	25.3	80	7	9
7. Gabon	1971	0.5 G	700 G		33
8. Ghana	1970	8.8 G	250 G		13
9. Ivory Coast	1968	5.2 G	320 G	9 A	10
10. Kenya	1970	11.7 G	160 G	30 D	6 H
11. Lesotho	1973	0.9 G	100 G	40	4 I
12. Liberia	1970	1.6 G	210 G	15	8
13. Mali	1972	5.1 G	70 G	10	3
14. Mauritania	1970	1.2 G	170 G	10	2
15. Mauritius	1972	0.8 G	280 G	80	11
16. Morocco	1970	15.4 G	250 G	20	9
17. Nigeria	1971	56.5	140		3
18. Senegal	1971	4.0	250	10	11 P
19. Sierra Leone	1968	2.7 G	250 G	27	4
20. Somalia	1973	2.9 G	70 G	5	2
21. Sudan	1972	16.1 G	120 G	15	6
22. Swaziland	1972	0.46	90 G	28	18
23. Tanzania	1971	13.3	110 G		4
24. Uganda	1970	10.1 G	130 G	25 A	6
25. Upper Volta	1972	5.5 G	70 G	5	2
26. Zaire	1970	19.3 G	90 G	13	8
27. Zambia	1971	4.2	380	43	28
Central America & Caribbean					
1. Costa Rica	1971	1.7	590	89	30
2. Dominican Rep.	1972	4.1 G	430 G	51	11
3. El Salvador	1971	3.3	320	58 YA	9
4. Guatemala	1968	5.4 G	391 G	38 YA	6 B
5. Honduras	1972	2.6 G	300 G	52	11
6. Jamaica	1969	1.9 G	720 G	88	24
7. Mexico	1970	52.4 G	700 G	76	18
8. Nicaragua	1969	2.1 G	450 G	53	10
9. Trinidad & Tobago	1971	1.0	940	90	40
South America					
1. Brazil	1971	93.2 F	460 G	67 F	16 4
2. Chile	1969	9.9 G	760 G	90	32
3. Colombia	1970	22.3 G	370 G	74 H	12
4. Ecuador	1968	6.3 G	310 G	68 A	8 V
5. Guyana	1974	0.7 G	390 G	83 A	35
6. Paraguay	1970	2.4 G	280 G	79	5
7. Peru	1971	14.4	480	72	18
8. Venezuela	1970	10.6 G	1 060 G	81	45
Asia					
1. Bangladesh	1971	72.4 G	70 G	23	
2. China, Taiwan	1973	14.9 G	430 G	82	19 3
3. India	1971	531.1	110	29	3 AV
4. Indonesia	1971	119.7	80	56	1 Q
5. Iran	1971	29.8	450	37	11
6. Iraq	1970	9.7 G	370 G	26	19
7. Jordan	1973	2.4 G	260 G	59	19
8. Korea	1971	31.8	290	85 B	13 0
9. Lebanon	1971	2.8	560	86 F	21 F
10. Malaysia	1972	11.1 G	400 G	60	32
11. Oman	1972	0.6 G	450 G	20	12
12. Pakistan	1972	62.7 G	130 G	19	.
13. Philippines	1972	37.9 G	240 G	72	6 3
14. Singapore	1972	2.1 G	1 200 G	75 F	46
15. Thailand	1973	39.8	234	82	8
16. Turkey	1968	36.2 G	340 G	49 A	9
17. Yemen Arab Rep.	1971	5.9	90	10	1 P
18. Yemen, P.D.R.	1972	1.5 G	120 G	10	6 G
SUMMARY FOR DEVELOPING COUNTRIES					
Number of Countries				59	64
Range				5-98	1-58
Quartiles: Upper				72	18
Median				52	10
Lower				20	5

Symbols:
- .. Datum unavailable
- . Magnitude nil or negligible
- 0 Magnitude less than half of unit employed
- * Questionable
- † Includes part-time students

Notes:
- A = 1965 or before
- B = 1966
- C = 1967
- D = 1968
- E = 1969
- F = 1970
- G = 1971
- H = 1972
- I = 1973
- M = Current prices
- N = GNP
- P = Including foreign aid

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Table 3

% of GNP devoted to education public expenditures only (5)	% of total public expenditures devoted to education (6)	Primary enrollment ratio net (7)	Primary students per teacher (8)	Secondary enrollment ratio net (9)	% Secondary enrollment in vocational schools (10)	Secondary students per teacher full-time equivalent (11)	% Higher enrollment in agriculture and engineering (12)	Annual output from higher education per 100 000 population (13)
4.3	9.8	89	24	46	50	12	24	77 B
5.2	21.1	98	24	82		17	9	630
4.2	14.2	91	33	91 Y	30	22	19	211
4.3	20.7	89	25	94	41 H	20	22	415
7.7	17.0	95	29	70	40	19	25	230 E
4.8 M	16.5 M	99	27	64		18	18	287
6.7	17.5	99	23	71 E	22 E	16	22	64 C
9.0	15.0	100	18	88	51	14	14	240
5.8	13.8	98	28	58	5 C	18	16	188 B
5.8	16.0	97	25	94		20	7	520
2.2	9.3 E	89 E	33 E	59 E	16 E	31 E	14 E	86 F
5.1	14.8	97	35	75	22	19	12	154
3.4	12.5 E	91	35	29	22 C	30	19	31 C
4.9 F	29.8 F	84	40	13	18	26	6	22
3.0	20.0	74	48	8	23	25	4	7
4.0 N	20.0	73 X	64	4 X	18	30		
4.3 N	14.3 D	33	72	2	8	30		
5.8	23.2	90 X	59	13	10	28		
2.8	20.0	17	51	5	3	35	10	4
5.0	22.0		46 G	20 H	13 H	21 H		
4.7	21.7 Q	74	28	8	4	18	15 E	13 E
4.2 C	20.4	44	46	6	8	23		
5.3 H	20.0	54	14	10	2	22	29 D	5 A
4.7	22.0	65	45	8	1	22	10.1	0.04
3.7	11.7	50 X	31	12 X	6	16	12 C	9 C
4.6 N	32.3	18	40	4	6	17	36	5
4.5	21.0	15 X	22	3	13	24	15	
3.7	11.7	86	31	30	2	30		55
4.1 N	17.4	54	35	12	3	22	2	7 A
3.2 N		34 X	17	4	14	27	16	6
4.0 N	25.1 H	68 X	46	11 X	4	25	2 C	12
3.8	19.5 C	12	31	13	7 C	25	22	9 H
	7.0	13	35	4	2	25	14	1
4.5	13.2	38	45	9	3	20	17	23
4.3 F	19.7	68	18	18	4	20	0	0.05
4.5	16.4	37	45	7	6	29	11	3
5.3 N	24.3 Q	46 EU	36	4 U	11	21	10	5
4.9	27.6	10	45	2	5	23	6	1
5.7 N	19.0 E	28	44	8	20	24	10	3 B
5.6	17.4	40 X	50	12	5	17	8	2
5.2	22.7	84	29	26	8	25	11	
2.5	8.4	80	54	13	7	24	22	
3.2	16.6 Q	69	37	16	18		24	8
3.5 B	17.6	43	38	6	22	26	10	6
4	18.2	41 X	37	14 X	17	14	8	4 E
4.4	19.1	86 X	52	4	9 A	19		11 A
7.6	17.1 Q	71	46	19	23 C	23	25 C	22
2.4	13.8	60	36	13	8	23	20 F	15
5.1	18.9	95	35	49	11	25	19	14
3.0 H	12.0 H	84	31 E	16 E	17 E		18 C	15 C
5.4	29.0 F	90 F	40	35	31	32 A	28 C	41 A
7.7 N	10.9	99 X	36	19 X	21	14	29	30
3.2 V	21.5 C	71	38	18	29 D	13 A	29 C	21 C
5.8 N	14	92 X	33 X	60 X	1	24	31	
2.2	14.0	69 X	36	17 X	2	15	12	31
4.5	21.1	80	37	30	15	22	23	111
4.9	22.0	80	33	35	32	22	18	59
3.2	20.2	56	48	13 X		28	4	30
3.3	14.0	88	40	51	23	26	32	299
2.6 AVY		79 X	43 A	28 X	6 AY	20 AY	11 AY	52 AY
2.6 NV	11.0 F	77 X	39	15 X	25	18 X	8	
3.1	10.8	52	35	23	3	16 F	23	39 F
6.7	16.3	64	22	25	3	26	17	80
7.0	8.8	91 X	38	50 X	10	22	3	101
3.6	16.7	100 X	56	46	49	16	28	117
4.0	21.0	79	18 U	34	36	23	4	120
6.4	20.9	90 X	32	33 X	7	26	19	80
7.3	8.8	74 X	33	0.2 X	23	9		
1.3	4.0	48	35	8	5	18 E	7 E	41 F
4.6	29.0	119 X	30	71	8	36	10	457
3.1 N	11.5	107 X	33	47	4	24	20	172
3.1	19.1	88 X	29	18 X	15	22	15	37 G
3.5	17.1	92 X	42	25 X	14	33	26	41
1.0 P	9.8 P	12 H	40 H	1 H	1 H	18 H		1 H
2.3 E	12.6 G	70 X	29	12 X	14	20	8	
64	64	64	65	65	64	62	56	53
1.0 9.0	3.8 32.3	6 119	18 72	2 75	1 49	9 36	0 36	0.04 457
4.7	21.0	86	45	29	20	26	23	41
4.0	18.2	74	36	13	10	23	15	16
3.0	14.3	46	33	8	5	19	8	6

Q = Central government only
U = Public only
V = Including private expenditure
X = Including over-aged students
Y = United Nations Educational, Scientific and Cultural Organization (Unesco) sources

Sources: Columns 1 & 2: World Tables / World Bank Provisional Figures
Columns 3—9 & 11: Bank Missions
Columns 10, 12 & 13: *Unesco Statistical Yearbook* and Bank Missions

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Table 4

Public Expenditure in Education per Student[1]

U.S. dollars, current prices

Countries grouped by per capita GNP	1960	1965	1970	Net change
I Up to $120	16	21	18	+ 13%
II $121-250	33	40	49	+ 49%
III $251-750	43	58	57	+ 33%
IV $751-1,500	114	165	179	+ 57%
V Over $1,500	338	504	749	+121%
Group V amount as a multiple of Group I	21	24	42	

[1] Annex 9 contains additional data on education expenditures.

Formation of Skills Corresponding to the Needs of Developing Countries

(a) Major Issues

Serious imbalances are observed between the skills generated by education systems and actual needs of most developing countries. In some areas, the number of graduates surpasses the absorptive capacity of labor markets, while in others critical shortages of skills continue to create problems. These discrepancies between the supply of, and demand for, skills are caused by a complex set of social, cultural and political conditions and aspirations which condition the development of educational systems. The failure of the systems to respond to countries' needs is accentuated by the fact that educational institutions have been borrowed from developed countries and have not acquired an indigenous character.

In considering the policy alternatives which may be open to a particular country, it may be useful to describe briefly the principal conditions which affect these issues. Not every one of the following propositions is wholly applicable to every developing country. But each does apply in large measure to most of them.

(i) Since incomes for modern sector (wage) employment tend to be substantially higher than for traditional (non-wage) employment, and since jobs in the former are often allocated on the basis of formal

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education credentials, there is a strong and constant pressure for expanding enrollments.

(ii) For many types of work, wages and wage employment (especially in the public sector) are commonly based on the amount of education and the level of the credentials held, rather than on the type of education and its relevance to job requirements or the individuals' demonstrable proficiency.

(iii) As primary enrollments increase, competition for wage employment intensifies and the demand for education increases. Employers choose job-seekers with more education, and they, in turn, demand fuller educational opportunities.

(iv) The upward push of demand reinforces the built-in tendency of education at any one level to be preparation for the next. As a corollary, the content becomes more theoretical and abstract and less practical; experience drawn on is more universal and less local; and cognitive, or purely mental, skills are emphasized over attitudes and manual, social and leadership skills.

(v) This education is dysfunctional for most types of employment—wage or non-wage—and for playing other roles needed in a developing society.

(vi) School enrollments in a developing country increase faster than job opportunities in the modern sector, giving rise to "educated unemployed" at increasingly higher levels of education.

(vii) Even with enrollments expanding beyond the absorptive capacity of the job markets, most students completing one cycle are not able to progress to the next. They feel a strong sense of failure, together with an alienation from their original environment. For those who are unable to find the job they expected after finishing a cycle, there is frustration which, in some countries (for graduates of upper cycles), has reached explosive proportions.

(viii) In the poorest countries, the rapid expansion of educational systems has been accompanied by rapid increases in the proportion of public expenditure devoted to education. While the acceptable percentage will vary from country to country, any proportion much over 20% begins to impinge upon the needs of other sectors and services and limits further increases in educational expenditure to the rate of growth of GNP and public revenue.

(b) Policies

Manpower planning has been a major preoccupation of educational planners during the last decade. Efforts have generally focused on increasing the supply of trained manpower in those categories in which shortages existed. A re-examination of the problem is now in

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order, given the increasing rate of unemployment among those who have been to school.

A number of policies are being advocated to help find employment for school leavers. These policies reflect differences in the analysis of the causes of the problem.

Increasing the Demand for Educated Manpower: This approach assumes that unemployment is the result of a failure on the part of the economy to harness the nation's skilled labor. It advocates creating enough productive job opportunities to absorb the output of the education system. Although positive in its choice of solution, the approach has limited applicability, given the constraints on investment capital and the high cost of capital inputs required to create new jobs.

Adapting Education to Job or Role Requirements: Another view of the employment problem sees the issue not so much as a quantitative imbalance as a qualitative one. The argument is supported by the fact that shortages in skills are observed in specific categories, such as science and technology teachers, engineers, agronomists and managers, despite unemployment among school graduates. The observation suggests that the content of education must be reoriented to relate skills taught to jobs, thereby ensuring that graduates can be employed. Emphasis on vocational and technical schools and centers, and attempts to "vocationalize" the curricula of academic schools, are illustrations of attempts to achieve such a reorientation.

Rationing Secondary and Higher Education: A common response to the problem of unemployment among school leavers is to decrease or stabilize school enrollments. This response reflects the view that unemployment among the educated is the result of an over-expansion of the education system, particularly at the higher levels. A policy of rationing education is proposed by those who hold this view. Measures involved might include the use of controls to limit access to certain kinds and levels of education, and the selection of pupils based on assessments of ability. Safeguards to avoid discrimination against underprivileged groups are generally built into such measures.

Changing the Pattern of Demand for Education: Some analysts conclude that the employment problem is the result of high private rates of return on schooling. They point to large government subsidies to education and large income differentials between groups with different levels of educational attainment. Subsidies keep a pupil's costs low, while existing salary differences offer him the promise of substantial benefits if he can stay in school. The result is an expected

large private rate of return which generates demand for schooling. Analysts who espouse this view argue that a decrease in a pupil's benefit-cost ratio will result in a decrease in the demand for education and a subsequent reduction in unemployment among the educated. They suggest transfers of some schooling costs to pupils and reductions in earning differentials between groups with different educational attainments. They indicate that reductions in earning differentials are more difficult to achieve, but that, in theory, they can be made by changing pay scales and fostering recruitment and promotion based on job-related ability tests rather than on school certificates. The armed forces and multinational firms operating in developing countries sometimes offer examples of this latter practice.

Of these policies, only the rationing of education and increasing school fees can be pursued in isolation by education officials. Adaptation of education to job requirements demands some cooperation from private and public employers, such as cooperation in determining the requirements for skills in jobs. More extensive cooperation is demanded from the non-education sectors if demand for manpower is to be increased or wage scales are to be altered. Policy development in these domains is complicated by the absence of a central policymaking body in the administration. Ministries of labor usually have a limited impact on employment and wage policies, which are determined at various levels of both the public and private economic sectors. Central planning organizations also have a limited impact in those domains. The scope for coordination between education and labor market policies is perhaps greater in countries where the government is the major employer. But, too often, the government's willingness to alter the prevailing system of rewards is tempered by its sensitivity to political issues, while economic constraints severely limit its ability to generate new employment.[1]

Development of Skills for Rural Areas

Most of the preceding discussion on education and employment is relevant to education oriented to the modern sector and to relatively higher levels. Policies for the rural setting raise a number of different questions. Among the approaches tried by the less developed countries to meet the educational and training needs of their rural populations are:

[1] For an integrated analysis of education and labor market policies, see the International Labour Office's World Employment Program Reports for Ceylon (1971) and Kenya (1972).

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Modification of the Content and Methods of Formal Education in Rural Areas: The "ruralization" of conventional schools to increase the relevance of rural education has been a traditional policy response. In most cases, this has been an isolated action unsupported by the creation of productive jobs for school leavers. This explains why many of the efforts have been unsuccessful in keeping the school leavers in rural areas, or in improving their participation in productive activities. "Ruralization" of conventional schools may, however, prove efficient if conceived not in isolation, but as part of an integrated policy of rural employment and development. This has been successfully tried on a small scale in Botswana in the Swaneng Hill and Shashe River Schools, where academic subjects have been combined with practical training directly related to the creation of new opportunities for self employment for school leavers.

Nonformal Schemes as Parallel or Alternative Programs to Formal Education: All less developed countries have a number of nonformal education and training schemes in rural areas. A recent Bank-sponsored study on nonformal education, *Attacking Rural Poverty*,[1] shows the diversity of these programs in terms of their purposes, target groups, coverage, institutional characteristics and educational technologies. These schemes are usually conceived in isolation and, unfortunately, are not designed as components of an integrated structure. Some schemes, such as the Rural Education Centers in Upper Volta, are closely linked with a national system of education, as well as with the local economy, by helping school leavers to engage in specific economic activities.

Functional Literacy Programs are another example of efforts in rural education. The United Nations Educational, Scientific and Cultural Organization (Unesco) has played a major role in promoting functional literacy through projects in a number of countries (the World Experimental Literacy Program). Functional literacy, which teaches reading and arithmetic as part of the training for skills for a particular job, is essentially a sound concept, although the results have been mixed. Some projects have suffered from organizational problems in relating particular literacy schemes to national programs, lack of guidance for experimentation, delays in evaluation and high costs. Some, however, have been established on more solid grounds. Such is the case in Mali, where the functional literacy program may become a

[1] Coombs, Philip H., with Ahmed, Manzoor. Attacking Rural Poverty: How Nonformal Education Can Help. *Prepared for the World Bank by the International Council on Educational Development.* Baltimore and London: The Johns Hopkins University Press, 1974.

part of the national educational system, and is closely linked with the groundnut and other programs at the national and local levels. These programs, conducted in the national languages, have generated interest and motivation at the grassroots level. Some preliminary estimates indicate that the cost of producing a literate person is lower than in primary schools. Brazil's experience with the MOBRAL (Movimento Brasileiro de Alfabetização) project, although not conceived as an exclusively rural program, provides an example of a massive, functional literacy movement. It is a nationwide scheme managed from a central office, but relying on community organizations and local participation. In its first four years (1970-73), MOBRAL has reached more than 6 million illiterates to produce about 4 million literate adults at low unit costs.

The Bank study on nonformal education and other surveys of rural education and training clearly indicate that many rural schemes are limited, and that small-scale operations have all too often not been integrated into nationwide systems. Uncoordinated proliferation of projects, promoted by different agencies with different interests, approaches and methods, is a common phenomenon. These experiments could be valuable sources of information in developing rural education, but their contribution would remain limited in the absence of an overall policy. The design of a coherent strategy for rural education should, therefore, be considered as a prerequisite for effective action in this field.

Some basic criteria for the design of rural education and training programs can be suggested.

(a) They should be functional. This means that they must serve well identified target groups (participants in particular crop or area development projects, health, population, nutrition programs, etc.) and meet their specific needs (improved production and management, adoption of new methods of child care, etc.). The Tea Development Authority in Kenya, for example, has been effective in combining the organization and marketing of smallholder tea production with the training of farmers in all relevant aspects of tea cultivation and marketing.

(b) Rural education projects should be designated as part of a total education delivery system. In Colombia, the SENA (Servicio Nacional de Aprendizaje) program is responsible for providing training for skills, on a national basis, for both adults and adolescents. It is governed by a council which includes the Ministries of Education and Labor, the National Planning Office, and management and labor organizations. Education projects can also become the focal points of coordinated action through the use of multipurpose centers to

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serve other activities, such as cooperatives, health and family planning services. This is being done in Tanzania at both the district and village levels through the establishment of Rural Training Centers and Community Education Centers. Teachers can also be trained and used as multipurpose agents.

(c) Education in rural areas should be integrated with other rural development activities at both the national and local levels. At the national level, development of a common framework of policy for various rural development activities is essential, with emphasis on making productivity and welfare-oriented activities complementary. At the local level, coordination or integration is necessary to ensure that education programs are functional and adapted to the needs and opportunities of the local milieu. They may be geared to other sectoral activities through functional literacy programs, such as those developed by Unesco in a number of countries. They may form components of integrated rural development programs, such as PACCA (Program on Agricultural Credit and Cooperation in Afghanistan) in Afghanistan and the Comilla project in Bangladesh, which have combined functional literacy, agricultural extension, cooperative marketing and the provision of agricultural inputs and services.

(d) Rural education projects should be replicable in terms of their costs and managerial requirements. For example, the national vocational training schemes in Colombia and Thailand have reduced costs through the use of mobile training units. The Vocational Industrial Centers in Northern Nigeria have made use of existing facilities in the evening and have drawn on the staff of other educational institutions on a part-time basis.

One of the critical areas in which education and training can play an important role is in developing an effective organizational and managerial capacity for rural development. An inadequate structure of management, at both national and local levels, often thwarts the implementation of rural programs. These programs require the support of a network of nationwide or regional institutions, such as rural development banks and cooperative unions, as well as strong local managers and leaders. Thus, the expansion of rural development programs creates new training needs. A special effort in training for rural development activities will be needed, especially in countries launching large-scale programs. Meeting manpower requirements in this field will necessitate crash programs for training or upgrading the staff of credit institutions, adult education schemes for training local leaders and use of teachers for cooperative management and accounting rather than creating completely new institutions.

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Ensuring Mass Participation in Education and Development

(a) Major Issues

Despite the increasing burden they impose on the economies of less developed countries, many education systems generally fail to achieve effective mass participation in educational opportunities.

The education sector has now become a major claimant of governmental and private resources. In the 1960's, public expenditure on education increased at an annual rate of 11%. Despite a slowdown in this rate, education continues to absorb a growing share of total public expenditure and of GNP. In 62 developing countries for which recent data are available, the median government spending on education is above 18% of total public expenditure, and the number of countries spending above 20% is increasing. The median public expenditure on education is about 4% of GNP. Again, there is a significant increase in the number of countries allocating 5% or more of their GNP to education.

All these efforts have been insufficient to provide education for more than about half of the children and adults in developing countries, and the projections for the next decade are not promising. Twenty-five of the poorest countries have only one-third of the primary age children enrolled. Although middle-income countries have achieved much higher enrollment ratios, the analysis shows that even there, more than one-fourth of the appropriate primary age group (excluding over-age children) does not attend school.

It is also important to realize that the numbers, both of those not attending school and of illiterates, will increase during the next decade if remedial action is not taken. Unesco has estimated the expansion of existing primary education systems in the developing world for the period up to 1985 based on most recent enrollment and population trends.[1] The projections of the in-school and out-of-school groups which are shown in Table 5 have drawn on this Unesco work.[2] It shows that school enrollments in the developing world may increase from 260 million to 350 million during the next ten years; in the lower-income countries of Groups I and II, enrollments may increase by 60 million, from 170 million to 230 million. The out-of-school groups may also increase from 290 million to 375 million, and from 220 million to 280 million, respectively.

[1] *Educational Development, World and Regional Statistical Trends and Projections until 1985. A Unesco Background Paper prepared for the World Population Conference, Bucharest, 1974.*

[2] *The "out-of-school group" comprises those children in the age group 5-14 who have never attended school or who left school before completion.*

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Table 5

Projections of School Enrollments in Developing Countries

(In millions)

	1970	1975	1980	1985
5-14 age group population in all developing countries	481	550	630	725
Of whom in-school	212	260	300	350
Of whom out-of-school	269	290	330	375
5-14 age group population in Group I and II countries	340	390	445	510
Of whom in-school	141	170	200	230
Of whom out-of-school	199	220	245	280

While the overall literacy rate has increased during the 1960's from 41% to 50%, it is still as low as 26% in Africa. The number of illiterates in the age group above 15 increased during the decade from 701 million to 756 million, excluding the People's Republic of China. (See Table 6.) It is estimated that 470 million of those are in the Group I and II countries. The increase in the out-of-school group during the next decade will raise the number of adult illiterates in the developing world to 865 million.

The fact that a number of countries are now approaching the limits of their financial capability without having achieved even a minimum education for the majority of their populations raises some fundamental questions. These questions are related not only to the overall allocation of resources and their efficient use but, probably more importantly, to the redefinition of priorities within the education system and to the consideration of alternative strategies to meet educational needs within the limit of available resources.

(b) Basic Education as a Policy Alternative

As has been discussed earlier, some form of mass education is a necessary part of any development strategy based on the fuller and more productive utilization of human resources. This is particularly important in lower-income countries where the provision of a minimum education is a necessary condition for the effective participation of the masses in productive life as well as in the social and political process. Mass education would also mean a step toward greater equity as it involves better distribution of educational opportunities to underprivileged groups.

In countries with high primary enrollment ratios, such as many in Latin America and Asia, mass education will be provided by the

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formal primary school system, supplemented by schemes designed to reach non-educated youths and adults. The major problems for these countries are: (a) to improve the quality and efficiency of the primary system, and (b) to increase its relevance for the majority of school leavers who will join the labor force. This may be a stage most developing countries will, in time, achieve. It would not be a feasible solution at present, however, for many lower-income countries—and most of the least developed ones—which face serious financial shortages at the very early stages of the development of their school systems. For example, when a country has achieved less than 40% enrollment of the primary school age group, but is already spending 15-18% of its total public expenditure on education, the expansion

Table 6

Estimated Number and Ratio of Illiterates in the Developing World, around 1960 and 1970

(in millions)

	Developing countries		Africa		Asia		Latin America	
Around 1960								
Males	295	50%	56	73%	224	45%	17	28%
Females	406	69%	68	88%	318	63%	23	37%
Total	701	59%	124	81%	542	55%	40	33%
Around 1970								
Males	306	40%	61	63%	231	37%	16	20%
Females	450	60%	82	84%	348	57%	23	27%
Total	756	50%	143	74%	579	47%	39	24%

Source: *Unesco Statistical Yearbook, 1972*

of the conventional formal systems may not be financially viable. In such a case, governments should explore alternative approaches, at least as interim solutions.

Basic Education

Basic education is an attempt, despite severe resource constraints, to meet the needs of substantial portions of the population who do not have access to even minimum educational opportunities. It is a supplement, not a rival, to the formal education system, and is intended to provide a functional, flexible and low-cost education for those whom the formal system cannot yet reach or has already passed by. Although the primary cycle may be its principal vehicle in many countries, it differs from the conventional concept of "universal primary education" in three major respects:

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(i) The objectives and content of basic education are functionally defined in terms of "minimum learning needs" of especially identified groups, and not as steps in the educational hierarchy (i.e., primary level).

(ii) The "target groups" of basic education are not necessarily school-age children. They may vary according to age (children, youths, adults) and socioeconomic characteristics (rural-urban groups, women, participants in particular development programs).

(iii) The "delivery systems" of basic education will take different forms in different countries (restructured primary schools, nonformal programs or various combinations of the two) adapted to the needs of different clienteles and to constraints upon resources. The costs will play a predominant role in the choice of educational technologies of basic education programs.

Minimum Learning Needs

A recent study[1] prepared for the United Nations Children's Fund (UNICEF) has defined "minimum learning needs" for individuals as a threshold level of learning required for participation in economic, social and political activities. These essential learning needs include functional literacy and numeracy (skill in using numbers), knowledge and skills for productive activity, family planning and health, child care, nutrition, sanitation and knowledge required for civic participation. They can be operationally defined as "minimum learning packages" to be attained by all, comparable to the term "poverty line" which refers to minimum family income. Minimum learning packages would vary according to the level and pattern of development and the relative poverty of each country.

The main features of the basic education programs for the low-income countries are:

(i) Formal primary schools are considered only as one part of a delivery system designed to reach children and youths in the earlier stages of their education. Other parallel programs such as the rural education centers in Upper Volta, which serve young people aged 15-20 years, can play an equally important role in providing education at that level. The use of traditional institutions is also possible, as in Mauritania, where the use of Koranic schools is being considered to provide basic education; or in Ethiopia, where village priests are being trained for educational work.

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[1] *Coombs, Philip H., with Prosser, R. C., and Ahmed, Manzoor. New Paths to Learning for Rural Children and Youth. New York: International Council for Educational Development, 1973.*

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(ii) Age of entry and length of study should be reconsidered, both for primary schools and other parallel schemes. A later start for a shorter course of study is seen as a way to reduce costs in order to broaden participation in education.

(iii) New and diversified programs are designed to take into account the terminal character of lower levels of education for the large majority of the participants.

(iv) Parallel changes are also introduced in teacher training, through the simplification of methods and localization of content and recruitment.

(v) There are cases where mass media, particularly radio, are used effectively in support of basic education programs.

(vi) In countries where teaching takes place in foreign languages, mother tongues are increasingly accepted as being more efficient learning vehicles for basic education.

Such an approach expresses a major principle of the report of the International Commission on the Development of Education, *Learning to Be*, that education should extend over lifetimes and not be confined to particular levels.[1] This approach will necessarily lead to significant changes in other parts of the educational system. It will, first, require a systematic effort to link education and work, through relatively short, nonformal, vocational, adolescent and adult training schemes, particularly for traditional and transitional sectors. Second, post-elementary education will need to be reoriented in order to match the changes introduced at the basic level.

It must be recognized that this approach frequently gives rise to controversies with important political and social dimensions. Objections are made that it creates a dual system—a standard primary school which provides access to higher levels of formal education, and a second-rate parallel structure which is terminal. This is considered a violation of the principle of equality of opportunity. Shortening the primary cycle and other cost-saving or simplifying proposals are opposed on grounds of educational quality. These objections are important, particularly since they are often supported by parents who perceive primary schools as being the only avenue for social advancement of their children.

These views are based, however, on an assumption that conventional primary schooling can accommodate all children within a reasonable time. This assumption is unrealistic for low-income countries which face a choice between a standard system serving only 30-40% of the children, and an alternative which aims at providing

[1] Faure, E., et al. Learning to Be. Paris: Unesco-Harrap, 1972.

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some kind of education for all. Given this reality, the search for alternatives is both justified and probably inevitable. It is important, however, to avoid rigid definitions of structures, particularly as they relate to access to higher levels of education. Adequate methods and criteria of selection can be designed which preserve the chances for selective educational promotion of children and youths receiving nonformal basic education in proportions not too different from those in the formal primary cycle.

It may be possible to minimize or even eliminate the "dualism conflict" among the primary school age group by structural adjustments. Thus, a six-year primary cycle might be divided into two subcycles of four and two years. Most of the money available for primary education would be devoted to the first subcycle, thereby increasing the percentage of the age group receiving a minimum education. The remaining resources would be applied to the second subcycle, in the amount needed to prepare an equitably selected group for further education or training. As resources increased, enrollment percentages in this subcycle would also be increased until, ultimately, there was no rationing of opportunity at the primary level. It should be noted that, in this example, the content of the primary course would need to be revised so that instruction in each subcycle might be substantially self-contained. The broad estimates of worldwide needs and possibilities for primary basic education which follow are predicated on the possibility of modifying school structures in this way.

It has been shown earlier that school enrollments in the age group 5-14 of the country groups I and II with the lowest per capita GNP might increase from 170 million to 230 million during 1975-85 if the most recent trends in enrollment continue. Despite the increase, the out-of-school population would increase from 220 million to 280 million by 1985. It would be useful, therefore, to see how difficult it would be to reverse this trend, given two different assumptions.

Approximately 140 million new student places would be required by 1985 in primary education in the Group I and II countries to take care of the out-of-school group if the existing primary education systems of the world (averaging about six years for the cycle) were expanded without change. If we assume a four-year cycle of primary education, it might be possible to achieve the same aim by adding approximately 60 million new student places. An expansion of the primary education system without a structural change might require an average annual capital spending equal to about 18% of the total public expenditures in 1974 on education in the Group I and II countries. A restructured, four-year system might require capi-

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tal expenditure equaling 8% of the same total. The annual recurrent increases in cost caused by the expansion would also be lower in a restructured primary system, and possibly average 2%, as against 5% in the traditional system.

The number of illiterates in the age group 15-44 increased during the last decade and will continue to increase. Unless existing adult education programs serving this age group and enrolling about 5 million students are expanded, the number of illiterates in Group I and II countries will continue to increase during the next decade from a current 355 million to 405 million.

Adult education is in its very early stages in most Group I and II countries. It is estimated, however, that all illiterates in the 15-44 age group could have an opportunity to participate in functional literacy or other basic education and training programs by the end of this century if programs for 12 million or 13 million adults per year were organized in addition to those already in existence. The programs would require capital expenditures of only about 1% of the total public education expenditures of Group I and II countries in 1974. The annual recurrent costs might be about 6% of their total public education expenditures.

Available data on costs are scarce and they vary considerably between countries. The above estimates should, therefore, be considered only as an illustration of the efforts needed to reach the population groups outside the current development sector and the existing education and training systems. They suggest that solutions are possible.

Education and Equity

(a) Major Issues

The regressive character of educational systems and policies is a prevailing feature in most cases, irrespective of the level of development of countries. Educational systems not only fail to ensure mass participation, as discussed in the previous section; they also practice discrimination in their process of selection, promotion and future determination of careers. They show an elitist bias, favoring urban upper- and middle-income groups at the expense of the rural and urban poor. The appraisal of a recent sites and services project in Zambia showed that half the population of the capital was living in squatter areas, but all schools, with one exception, were located elsewhere. Consequently, the primary school enrollment was only 36% in the squatter areas, against 90% in the rest of the capital. Dropout and repetition rates were also higher among the squatters.

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Students of higher-income origin have a greater chance not only of access to education, but also of promotion within the system. This is seen in the socioeconomic profile of the dropouts, repeaters and successful students, and in the fact that middle- and upper-income groups are particularly over-represented in higher education. In some countries, other factors, such as sex, ethnic origin or religion, play a role which is frequently combined with the effect of income levels. These inequalities are aggravated by differences in the quality of teachers, educational facilities and other inputs between schools serving different geographic areas and income groups. (See Annex 7.)

The system of educational finance reinforces the regressive character of education. Because of the combined effect of the tax systems and the pattern of distribution of education services, the concept of "free education", which is intended to assure equality of opportunity, in fact operates as a mechanism by which income is transferred from lower- and middle-income groups to upper-income categories. This is particularly true at the higher levels of education, where the public subsidy per student is particularly high. (The other implications of educational finance for such issues as demand management in education and ensuring a regular flow of resources into the system are discussed later.)

(b) Policies

How to reach neglected target groups and equalize educational opportunities? Policies directed toward these objectives have traditionally been conceived only in terms of access to education. It is now evident that equalizing access to education is far from sufficient to ensure equal opportunity.

Equalizing access is, of course, a necessary first step. The appropriate location of educational facilities is a simple but effective instrument, particularly for lower levels of education where physical proximity is a major factor in determining enrollments. At higher levels, scholarship schemes and the provision of living accommodation can be used to reduce the barriers for the underprivileged.

Equalizing the chances for achievement is a more difficult objective. The important question here is the assessment of the school-related and other variables causing inequity and the identification of the factors which can be influenced by educational policies. Non-school variables, such as family characteristics, cannot be directly affected by educational policies. Schools can, however, be instrumental in providing to underprivileged children some of the elements lacking in their homes. A larger supply of good teachers, textbooks and reading and other learning materials would contribute to im-

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proving student achievement. These inputs, however, imply increased unit costs.

Methods of selection and promotion in education are among the school variables influencing student achievement. Examinations and diplomas are frequently criticized as factors reinforcing the regressive effects of education. Despite the progress noted in the use of more flexible aptitude and attitude tests, and notwithstanding some experience with the controversial "quota system" (i.e., introduction of quotas to equalize the chances for promotion of students from underprivileged areas or population groups), fully practical alternatives have not yet been developed.

The socioeconomic background of a student's family (income, parental attitude and level of education) appears to be a very important non-school variable influencing achievement. Yet it can only be partially affected unless changes are made in the overall income distribution pattern of a country. Even so, it would be useful to explore policies in areas such as parent education or school and community action which might compensate for the absence of an adequate home environment.

The financing of education is a powerful policy tool to achieve equity, as it determines the distribution of the financial burden of education. A modification of the regressive impact of public subsidies is essential. Subsidies should be used to increase the participation of underprivileged groups and not, as they are now, to support children from middle- and upper-income families. An income-related system of subsidies and fees can thus be instrumental in equalizing educational opportunities.

Equalizing educational opportunities should not be considered only in terms of the needs of the school-age children. Such policies should also address themselves to people who are already in the labor force in a way which goes beyond the conventional adult training programs. There are methods to provide working people with a "second chance" to continue or complete their education through full-time or part-time studies.

The preceding paragraphs deal only with the question of educational opportunities. They do not cover the broader issues relating education to income distribution and social mobility. Recent research and experience have raised a number of serious questions challenging some of the traditional assumptions about the effects of education on social mobility. Equalization of educational opportunities does not automatically generate significant changes in income distribution and social mobility. The impact of education on mobility appears to be determined essentially by the pattern of stratification and the socio-

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economic system of rewards in each society. Knowledge of these relationships is fragmented and limited, particularly in developing countries, since most of the research has been done in developed countries. It is possible to state, as a general proposition, that in the absence of other supportive social and economic action, isolated efforts in education would have only a limited effect on mobility. To achieve significant results, educational policies should be formulated within the context of a broader social policy.

Increasing Efficiency in Education

(a) Major Issues

Educational systems in most developing countries are inefficient in using resources and often do not achieve their quantitative and qualitative objectives. The shortage of good teachers has been and continues to be a major handicap. Though the number of primary teachers has so far been adequate, their training has left much to be desired. The problems caused by the low quality of teachers in secondary education are aggravated by quantitative shortages, particularly in science and technology. Many countries face serious difficulties in developing teacher training schemes which correspond to changing needs. Efforts to upgrade teachers are usually limited and fragmented. School systems are frequently managed without proper attention to the effective utilization and supervision of teachers. Effective utilization is particularly important, since teacher costs, which range from 75% to 95%, are by far the most important single factor determining education expenditures.

The findings of recent research tend to challenge some of the assumptions concerning the relationships between class size, level of training of teachers, and student achievement. In a study on student achievement in secondary schools in some 20 countries, including four developing ones, it has been reported that there was no significant correlation between class size (within reasonable ranges) and student performance in certain subjects.[1] Another study in a Latin American country indicates that students do almost as well when studying under normal school-trained teachers as they do when they are taught by university graduates. The implications for saving money are significant. These results should be interpreted with care to avoid hasty generalizations for less developed countries and those types of education, such as vocational training, which were not covered by the studies. They do indicate, however, that the scope for improve-

[1] *A survey organized by the International Association for the Evaluation of Educational Achievement (IEA).*

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ment in the cost-effective use of teachers may be greater than was traditionally assumed.

The design and efficient use of learning materials and equipment constitute another problem, one which is caused by inadequate curricula and methods of learning. There are, however, serious problems in the production, distribution and utilization of equipment. In many developing countries, students and teachers do not have enough basic textbooks. In 11 countries with annual per capita incomes of under $250, the average annual production is less than one textbook per student (Annex 10). Those few textbooks which are available are often irrelevant. In view of their importance in improving student achievement, larger local production of textbooks, especially in mother languages, is of high priority. The supply of other equipment used in learning is even more limited. Total spending for textbooks and other learning aids is often less than 5% of the education budget; it might be about 10-15% to meet a minimum standard for effective learning. Imported equipment is usually too costly and too complex, and is not adapted to local conditions. Even when available, it frequently is unused because the knowhow required for maintenance and utilization is lacking. The local design, economic production and effective use of various types of learning materials are critical but neglected tasks.

One of the strongest reinforcements of poverty is the lack of adequate nutrition for both childbearing mothers and their children. The mental capabilities of children can be permanently impaired in the very early years by nutritional deficiency. Though feeding programs in schools are valuable to the improvement of student performance, they often come too late in a child's life to avoid early damage. The major contribution of education in the area of nutrition may be through the instruction of parents in matters of diet, food handling and other rudiments of home economics. It may also be expected that adult education in aspects of nutrition will be most effective when combined with food programs.

Malnutrition and related illnesses affect student performance by reducing the child's motivation and his ability to concentrate and learn. In a study carried out in four Latin American countries, it was found that children miss more than 50 days of school a year (25-30% of the scheduled school days) because of illnesses which may be related to malnutrition, compared with an average of 10 days or less per year in the developed countries.

These inefficiencies are first reflected in the performance of the school systems, and in dropout and repeater rates. According to Unesco statistics, the median dropout rate for the first level of educa-

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tion is 58% in Group I countries, against only 10% in Group V countries. In many countries, it takes more than 10 years to produce one graduate of the 5-6 year primary cycle, and about one-fourth of the education budget is spent on students who drop out in the first three grades. (See Table 7.)

The performance of educational systems is also assessed in measurements of student achievement. Most research in this area concerns developed countries. The IEA survey studies student achievement, but it covers only four developing countries. It is important, however, to encourage local research in developing countries to measure student achievement in relation to a range of socioeconomic goals and conditions.

Table 7

Internal Efficiency [1]

	Percentage of dropouts		
	Lowest	Median	Highest
I. Estimated percentage of dropouts in cohorts entering primary education around 1960			
A. Countries by per capita GNP			
I —Up to $120	27.9	57.5	81.3
II— $121-250	13.2	49.0	75.5
III—$251-750	8.8	45.1	74.7
IV—$751-1,500	6.7	45.7	60.6
V —Over $1,500	0.7	9.7	56.8
B. Countries in Major Regions			
Africa	26.2	54.0	81.3
Latin America	33.1	61.6	74.7
Asia	0.7	20.2	64.0
Europe	0.7	18.3	48.3
II. Estimated percentage of dropouts in cohorts entering senior secondary education around 1960			
A. Countries by per capita GNP			
I —Up to $120	5.0	43.2	47.9
II —$121-250	5.2	46.0	62.0
III—$251-750	5.0	28.3	69.1
IV—$751-1,500	11.4	13.9	23.4
V —Over $1,500	4.8	15.0	22.1
B. Countries in Major Regions			
Africa	7.5	41.9	61.4
Latin America	8.5	18.5	28.3
Asia	4.8	18.1	57.8
Europe	8.2	11.4	21.8

[1] The survey covered the educational systems of 58 countries for the years 1960-61 and 1967-68.
Source: Based on data compiled by Unesco.

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Inadequate structures create other problems of efficiency. The education structure is often dominated by a formal system which is both chronologically-graded and age-specific. Because of the hierarchical structure, formal education operates with rigid entrance and exit levels. Those who fail to enter at the specific levels may forever lose educational opportunities; those who do not leave with proper certificates at the exit levels are considered failures.

(b) Policies

The first step towards improved efficiency would be to make more specific the educational and training objectives and the performance standards of formal as well as nonformal learning systems. What is the minimum level of reading comprehension or numeracy skill needed to fill a specific role in rural development? What are the bases—educational, social, psychological—which should determine what percentage of students, if any, should repeat a grade? What kinds of behavior should schools elicit in a developing society? Encouraging countries to provide answers to these types of questions would improve their prospects for achieving greater efficiency in education.

The second step is to identify the factors most likely to affect efficiency. What are the major factors responsible for high dropout and repeater rates? Are they school factors, such as the system of promotion, the distance to school, social tensions, the language of teaching, antiquated examination or testing systems, or a stultifying approach to teaching? Or are other factors more important, such as poor health, inability to pay fees or other expenses, or the need to work? It is essential for administrators to assess the causes of inefficiency in the particular social and educational environments of their countries and to design cost-effective measures to cope with them.

The level of training and remuneration of teachers may have important educational and financial implications. Overqualified teachers may not necessarily assure a better quality of education. Shorter periods of teacher training, supported by in-service training, could lead to significant savings, as could larger class sizes at the middle levels. Class sizes at those levels are generally not large now, and though an increase of 10-15% would not lower the quality of education, the savings achieved could be used either to reduce current costs by some 8-10% or to provide funds for activities known to improve learning. The type of teacher training institution also affects efficiency. In some cases, the smaller and locally based primary teacher training colleges can be more effective than large urban-

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based schools in assuring a better deployment of teachers and an adaptation of the training to local conditions.

There are other measures which can save money or which can be implemented without increasing overall costs. Adapting the school calendar to the calendar of local economic activities may improve attendance. Flexible promotion methods, combined with multigrade teaching, could lead to more effective use of teaching resources. Teaching in national languages would improve learning rates and student attitudes to schooling.

Many measures, however, would have important cost implications. It is estimated, in a typical case, that the improvements educators traditionally recommend—smaller class sizes, better learning aids and more highly trained teachers—would increase annual recurrent costs by 75%. To counter this effect, for example, teachers could learn to prepare, by themselves or with the help of students, some of the teaching materials and apparatus. Essential but costly manufactured equipment may be kept in central facilities or mobile units which serve a number of schools.

Programs involving the use of such mass media as educational radio and television should be designed on the basis of careful analysis of costs and the capacity for the production of educational material. Emphasis should be placed on logistical problems, such as the distribution and maintenance of receivers, spare parts and other materials. The unit cost of radio or televised instruction can be very high for small numbers of students but declines sharply as the numbers increase. In the Ivory Coast's television project, for example, the estimated annual recurrent cost per student was $115 for 21,000 students and $6 for 700,000 students. It should also be remembered that where technical problems or costs make television prohibitive, radio may be a useful and cheaper substitute.

Preparing teachers to perform a new role in a changing educational technology is of crucial importance. Teachers are now expected to accept educational broadcasting not merely as a substitute for the blackboard, but as a vehicle to introduce improved curricula and new subject matter into the classroom. The best way to secure the cooperation of teachers is to involve them with the work of the broadcasting teacher in all phases of the program. Such cooperation will help secure a better product as well.

Better nutrition may be an important factor in increasing the return on educational investment. Feeding programs and others directed to improving the performance of those already in school—as well as programs aimed at pregnant mothers and younger children—may have a high rate of return. Nutrition influences the quality of educa-

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tion, and education can influence the quality of nutrition. Primary schools, teacher training colleges, agricultural training institutions, adult literacy programs and mass media can all provide nutritional education in their regular curricula.

There are, finally, ways to vary the structure of education systems so as to maximize both efficiency and educational opportunities. By varying the length and number of cycles in the formal system (and consequently the number of exit points), and by varying the progression rate from one cycle to the next, it is possible not only to broaden the base of enrollment, but also to respond more readily to the changing needs and possibilities in the system as a whole. To the traditional six years of primary, followed by three years of lower and three of upper secondary (6-3-3), a number of modifications can be made (e.g. 4-4-4 or 4-2-2-4). Each will serve different needs for schooling and initially larger percentages of the entering age group.

Structural variations may also be combined with patterns of school location to achieve a better distribution of education. In a 4-2-3-3 structure, the intermediate years—or part of them—may be provided in smaller, localized, satellite schools which feed into a larger school for the upper cycle, thus minimizing the need for boarding accommodations. This structure is now being introduced in Peru.

Close articulation between formal, nonformal and even informal systems can help to distribute the education workload more efficiently. It may be advantageous, for example, to upgrade the traditional (informal) systems of child care and preschool education by (nonformal) adult programs, thus avoiding expensive, formal, kindergarten instruction.

Once programs of basic education have been established, the critical task for many countries is the elaboration of follow-up vocational training in both rural and urban areas. This may take many forms—on or off the job—short courses at vocational or rural training centers, apprenticeship, youth groups, extension work, cooperatives, mass communication media and mobile training units. They may directly follow the completion of basic education or they may take place at intervals later. These nonformal "delivery systems" may prove to be more cost effective than the replication of formal education and training institutions at the lower and upper secondary levels.

Efficiency has so far been discussed in terms of structures and resources for educational institutions. Efficiency can also be discussed when choosing between alternative educational technologies, especially for vocational education and training. Attention has been focused on the comparison of vocational and technical schools with production-related or on-the-job training programs. Recent debates

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on "the vocational school fallacy" tend to create a bias in favor of on-the-job training programs, particularly for those with middle- and lower-level skills. This conclusion has not been substantiated by a Bank research project on the "Cost Effectiveness of Alternative Learning Technologies in Industrial Training",[1] which finds no evidence to support the claims for a clear-cut superiority of one technology over the other. Factors such as the "skill" category, the size of the target group, the teaching methods, and particularly the cost of equipment used for training, determine the efficiency and economy of the particular technology.

Improving Management and Planning Capacity

(a) Major Issues

As enrollments, educational personnel, schools, and expenditures continue to increase, the management of education becomes a task of formidable magnitude and complexity. Experience reveals that educational planning, as understood only a decade ago, is inadequate, and that new approaches need to be developed. In most other respects—administrative structure, policy formation, operational procedures, research, information systems and evaluation—the elements of modern management are not yet available.

A major challenge faced by developing countries is to find better ways to channel private demand for education into socially beneficial areas. Countries must not only eliminate distortions between supply and demand, but also make educational systems more responsive to new development policies. It is evident that changes in the pattern of demand would require interventions not only in the education systems (structural and institutional reforms and changes in educational content and technology, etc.) but in other areas as well, such as the labor market. In orienting educational policy making toward social and economic utility, a comprehensive policy is needed to cover areas generally beyond the scope of conventional practices. Policy makers in education are usually not equipped to view their field in this broader context, especially in its interactions with employment and finance.

The structure of administration is another source of difficulty for the design and effective implementation of comprehensive educational policies. Educational responsibilities are often dispersed. Ministries of education, labor, agriculture, health, etc., control most educational training institutions. Their activities are seldom properly

[1] Zymelman, Manuel. *Bank Staff Working Paper No. 169*. December 1973.

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coordinated. The lack of effective coordination at the local level causes further complications. Various agencies are directly linked to their respective ministries in the capital without being connected with other local units. A serious shortage of qualified middle-level managers in education hampers coordination within the administration. Poor communications with the public also create additional difficulties in generating popular support for new educational policies.

One fundamental issue in the effective management of education is political. The inability of political decision makers and education managers to communicate with each other is frequently a cause of failure in the implementation of educational policies and plans. It is important for both groups to have a clear idea of the objectives that education is expected to fulfill. Confusion about objectives or lack of consensus among educators and politicians have often been a major reason for failure. No planning method, however sophisticated, can substitute for a clear understanding of objectives. Planners must, however, take into account the political context within which educational policies have to be formulated. Political pressures generated by popular demand for certain types of education sometimes leave little scope for governments to consider other options. Designing politically feasible alternatives and preparing technical solutions which avoid political tensions are formidable challenges for educational planners.

(b) Policies

(i) *New Approaches to Planning.* Two approaches to educational planning have customarily claimed attention—the rate of return approach and the manpower approach. The wide use of rate of return analysis in other sectors makes its use appealing in education since, theoretically, it could thus establish a basis for comparing and establishing intersectoral, as well as intrasectoral, priorities. Despite considerable efforts to develop rate of return analyses as an operational tool in education, it has so far been impossible to resolve many of the methodological and practical difficulties, either for sector or project analysis.[1] Estimates of manpower requirements have been more widely used although this method suffers from many of the same limitations. They include, notably, the limited reliability of its demand estimates given the long lead time required to produce the supply, the scarcity of knowledge about the ability to substitute skills and, more generally, about the behavior of the labor market.

[1] *Thias, Hans Heinrich, and Carnoy, Martin. Cost-Benefit Analysis in Education—A Case Study of Kenya. World Bank Staff Occasional Papers, No. 14. Baltimore and London: The Johns Hopkins University Press, 1972.*

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The developments in basic and nonformal education foreseen in the next decade or so will raise further problems in the use of both of these techniques. Both methods are exclusively quantitative and are dependent upon data relevant to the modern sector, such as growth rates of GNP, wages, productivity, visible employment rates, occupations, and formal education costs. Though they can suggest how much (of the same type of) education is needed, they say nothing—as presently practiced—about who is to receive it. These methods, therefore, bypass the key questions of equalizing educational opportunities and participation, especially for people in the traditional sectors.

Despite these limitations, manpower planning can yield meaningful results in some specific areas. Occupational categories related to science and technology (and, more generally, all the skills for which no substitutes are readily available) can be subject to conventional methods of manpower analysis. A new and emerging economic activity for which no labor market yet exists could also be planned with the help of manpower considerations. A broader approach to planning is needed, however, to include analysis of both the demand and supply of trained manpower and of the socioeconomic environment within which the adjustment process between them takes place.

Though it has yet to be elaborated fully in practical terms, "cohort analysis" may become a useful tool for planning in the present context. While the unit of observation in conventional educational planning is the proportion of the population enrolled in and processed by the education system (the enrollment pyramid), cohort analysis is based on the idea of following the major steps in the life cycle of the total age group. This involves those who enter the system as well as those who are excluded. The steps include enrollment and promotion within the education-training systems, both formal and nonformal, and the absorption into the labor market (employment-unemployment, occupation, income, etc.) of all the groups, whether graduates or dropouts, leaving the system. This approach to planning provides a convenient way of viewing formal and nonformal education as a single learning system, and of analyzing its relationships with the labor market. It also embraces a longer time span than the age period of formal education, and is thus in line with the concept of "lifelong education."

Cohort analysis requires a broad information base covering not only the school population, but the educational and employment status of the whole age group. In some cases, such information can be obtained through special tabulations of available census data, school statistics and other survey results. But a fully fledged use of this

approach may require the collection of new information, particularly in the area relating jobs to educational background. Tracer studies have been introduced in about ten education projects supported by the World Bank. A recent study in Thailand showed that while the vocational school graduates were readily employed and had no serious employment problems, an increasing percentage of them were entering higher institutions, and were taking subjects for which their vocational studies were less well suited. Tracer studies permit, therefore, a following of educational vocational careers of identifiable-age cohorts and of the impact on these of specific educational measures. It would, therefore, be useful to incorporate tracer systems into major educational programs.

More disaggregated analysis (by regions, economic sectors and social groups) is another essential feature of educational planning. Modern and traditional sectors cannot be grouped together in terms of their educational training requirements. Some specific social or occupational categories may need to be treated separately. Where, for example, it is government policy to improve the condition of a hitherto underprivileged group, or where the government wishes to test the impact of a new policy on different sectors of society, the disaggregated approach will have to be used.

(ii) *Educational Reform:* The implementation of new educational policies depends largely on substantial changes in the organization and structure of education systems. This implies that not only must existing institutions be changed, but that new ones must be created and developed as well. Political determination and effective management are essential for designing, initiating and implementing educational reforms. A critical question in considering reforms is the scope and pace of change on the basis of a realistic assessment of the country's readiness. Awareness by the public of the need for change is the starting point for the development of a climate conducive to reform.

(iii) *Educational Finance:* Educational finance raises questions of management affecting most aspects of educational policy. References have already been made to the implications of finance in such educational areas as supply, demand and equity. It would now be useful to present a more general picture of the role of finance as a policy tool for education.

An important function of the system of finance is to provide a regular flow of funds into the educational system to meet its current needs as well as its planned expansion. The critical issue is how to deal with the increasing burden of education on public finance. A number of ways can be suggested to broaden the sources of revenue

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for education beyond the limits of regular government budgets. They include various methods by which those who receive an education pay a greater share of its costs. Self-help is one way in which contributions may be elicited from whole communities. Earmarking certain revenues or tax levies on the total wage bill of business firms is another example, though it has usually been linked with specific types of education such as industrial training or adult literacy. Student loan schemes are also intended to lighten the burden of the government's education budget, although the available evidence suggests that the overall impact of student loans is rather limited.

The mode of financing can affect demand for education. The cost of education (fees, other expenses and income forgone), relative to the incomes of various segments of the population, is one factor determining demand. Subsidies and fees adjusted for different types and levels of education could, therefore, play a role in controlling the level and structure of demand. In some cases, the demand for certain types of education can be influenced by the use of nonmonetary contributions such as direct work schemes to encourage enrollments in vocational schools. Equity in education is also sensitive to alternative modes of financing.

Despite increasing knowledge about the relationships between education and finance, many financial measures need to be further developed and tested. The question, moreover, goes beyond the definition of specific policy measures or tools. These tools need to be related to each other to form a coherent education policy. A system of fees, if narrowly conceived, can, for example, defeat the principle of equal opportunity. There is, furthermore, the need for these measures to be consistent not only with education policies, but with overall finance policies as well. The earmarking of certain public revenues for education, while appealing to educators, may be an unsound fiscal practice.

(iv) *Research and Development for Education Policy:* In managing education systems, decisions must be made about a broad range of questions frequently not covered by traditional education policies or by available information and analysis. This means that some critical decisions will have to be made in uncertainty, without the benefit of past and current experience and, in many cases, without adequate research and information. In this context, policy making and implementation should be seen as a learning process conceived to improve one's knowledge about the behavior of education systems. Experimentation and feedback must be considered as regular components of major operations. Such an approach to policy making requires adequate research and development. Since research capability is lim-

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ited and difficult to develop, a "research strategy" must be designed to establish priorities in the development and utilization of the resources of research. Policy-oriented research requires familiarity with local conditions. The development of local research capacity in less developed countries is, therefore, of high priority.

The creation of machinery for regular evaluation is essential for the effective management of education, as it is the main channel through which research and development can be introduced into decision making. Evaluation also contributes to the better design of educational schemes, by requiring a clear, operational formulation of their objectives. It plays an important role in the assessment of the results of various new measures, whether they are related to cost effectiveness, to internal efficiency and qualitative improvement, or to the contribution to development. Authorities on education have been increasingly aware of the need for independent machinery for formative evaluation which would be built into the educational system. Few countries, however, have so far established such regular mechanisms. A current Bank research project is aimed to help meet this need.

THE WORLD BANK'S EDUCATION LENDING POLICY AND PROGRAM

Through its lending for education, the World Bank seeks to foster, in a variety of ways, developmental objectives tailored to the needs of its developing member countries. Under the circumstances that have been described—the great variety of conditions within developing countries and the uniqueness of each country's development strategy—the Bank's policy for education must have a high degree of diversity in its application. No single formula or strategy can meet the needs of all the Bank's borrowers. An analysis of educational profiles of countries with different levels of income and stages of development shows, however, some patterns which can help the Bank adjust its response to the differing priority needs of countries.

A basic premise is that the Bank's operations should reflect its overall policies. The Bank is deeply concerned with the problems and needs of low-income countries and with the promotion of development strategies designed to improve the well-being of the lower 40% of the population through increased productivity and employment and improved income distribution. The Bank's activities in lending for education increasingly reflect this concern. But while this is a new and dramatic feature of Bank policy, it should not obscure the fact that the World Bank will continue to assist countries which, although

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having moved to higher levels of development, still require help. A flexible response, adjusted to the variety of conditions in all developing countries, will govern the Bank's activities in education.

Meeting the minimum learning needs of the uneducated masses to ensure that they can both contribute to and benefit from economic and social development is a major task for the poorest countries. The development of low-cost and functional, basic education programs, through the restructuring of primary education and/or other methods, should be emphasized in such countries. In many cases, a necessary complement would include the concentration on rural training for related target groups within the framework of broader rural development schemes. Conversely, the development of upper levels of formal education should be selectively and carefully planned, taking into account both the limited absorptive capacity for labor in the modern sector, and the need for local leadership and technical skills in both the public and private sectors.

The development of secondary and post-secondary levels of education will take a more central place in the education strategies of the middle- and higher-income countries. Where first-level education is already widely available, the development of skills to meet the needs of increasingly sophisticated economies will have priority. In determining the rate of expansion of their education systems, as well as in defining their internal priorities and the choice of institutions and technologies, these countries will have major policy concerns of their own. They must strike a balance between the overall supply of and demand for educated manpower, matching the educational output with the particular needs of the economy and the efficient use of their resources. Middle- and higher-income countries must improve their planning capabilities (no less than the poorer countries), and they must place emphasis on educational reforms as well. These countries will have to pay increasing attention to providing educational opportunities for the urban and rural poor.

Differences in the educational strategies of developing countries will be heightened by the differing effects on their economies and development prospects of the recent changes in the world economy. At one extreme, it is estimated that the per capita GNP of seven members of the Organization of Petroleum Exporting Countries (OPEC) will increase by 8.4% per year during the period 1973-80. For such countries, financial constraints will be minor or non-existent. Indeed, it is clear that they intend to expand education as fast as possible. At the other extreme, ten countries with an annual per capita GNP of less than $200 are estimated to have growth rates during the same period of minus 0.4%. It is not yet clear whether such

countries, faced with worsening economic prospects, will be able to stick to their goals of expanding educational opportunities, or whether their educational priorities will change. Their reactions to worldwide economic changes need to be followed closely so that the Bank can develop ways and means to respond to their needs in a timely and adequate manner.

These examples illustrate the differing considerations which must be brought to bear in framing lending programs for individual countries. It would be useful, therefore, to view these new considerations against the background of the Bank's earlier and more recent experience in this sector.

Bank Policy and Activities: 1963-74

By 1961, it had become clear to the World Bank that the lack of qualified manpower in developing countries was a serious obstacle to the successful implementation of many of its own projects in particular and to the process of economic development in general. As a result, the belief grew that investment in education was not only consistent with the Bank's objectives, but would be a desirable addition to its activities. In 1962, the first education project was presented to the Executive Directors. Later, in October 1963, a memorandum from the President on "Proposed Bank/IDA Policies in the Field of Education" was issued in which the basic statement of policy with respect to the types of projects to be financed was set forth.

The major point of the policy statement was that "the Bank and IDA should be prepared to consider financing a part of the capital requirements of priority education projects designed to produce, or to serve as a necessary step in producing, trained manpower of the kinds and in the numbers needed to forward economic development in the member country concerned. In applying this criterion, the Bank and IDA should concentrate their attention, at least at the present stage, on projects in the fields of (a) vocational and technical education and training at various levels, and (b) general secondary education. Other kinds of education projects would be considered only in exceptional cases."

Adhering to this policy, the Bank concentrated on high priority projects (usually related to the modern sector) within a country's educational development plan. Emphasis was placed on the training of critically needed types of manpower insofar as those needs had been identified.

With increased knowledge and experience, the Bank's approach to education widened in the late 1960's. In a Memorandum for the

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Executive Directors in July 1970, the President reaffirmed the first sentence of his 1963 statement quoted above, but added: "In applying this criterion in future, we should broaden the scope of projects considered and we should determine priorities and select projects on the basis of a thorough examination of the education systems as a whole rather than by *a priori* designated areas of eligibility which may not relate to the particular country. We should continue to emphasize projects which, like vocational training, produce trained manpower directly but we should also consider for financing other types of projects . . . which should have important long-term significance for economic development." Such projects, the Memorandum added, would be "designed to encourage changes which improve the relevance, efficiency or economy of education systems."

As a consequence, the scope of the Bank's education operations increased to cover not only "hardware" projects in restricted subsectors, but a mixture of "hardware" and "software" projects. These projects were based on sector analysis and were aimed at achieving qualitative improvements, as well as meeting crucial manpower needs. Bank lending was also increasingly marked by experimental approaches, incorporating such innovations as educational television, production of learning materials, support for curriculum development and educational planning and management, mobile training units, and the training of health personnel.

These developments can be seen in the profile of the Bank's lending in education presented in Table 8.

The period covering the fiscal years 1963-71 was characterized by strong support for technical and vocational education (29%) and agricultural education and training (15%). Most lending (44%) went to general secondary education, largely in the form of comprehensive schools offering specialized options of pre-vocational education at the upper level in agricultural, industrial and commercial subjects. Teacher training institutions absorbed about 12% of the lending. Although a precise breakdown between rural and urban locations is not possible, urban groups preparing to work in the modern sector or act as modernizing agents in the rural sector were given priority in most instances. Other than teacher training, little was done in support of primary education, and with a few notable exceptions, universities were not assisted. A few projects for adult training—which would now be called nonformal education—were supported, but most Bank assistance went to the formal education system. Technical assistance amounted to less than 5% of the volume of lending.

A comparison of the lending during 1972-74 with the figures for 1963-71 shows that a shift began in the pattern of Bank educational

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financing. For example, the heavy concentration on the secondary level during the earlier period started to give way to greater support for primary and basic education and for the training of adults and youths. Technical assistance increased from less than 5% to over 7%. Moreover, the number of projects which included Bank-financed technical assistance rose from an average of 56% for the earlier period, to 90% in 1974. Relatively new items such as the production of learning materials, curriculum development and planning, which had only occasionally been assisted in the past, received more regular attention. They have more recently accounted for 5-10% of the funds. (See Annexes 2-5.)

The shift observed during the 1972-74 period is further confirmed in the projected lending program for 1974-78. Primary and basic education (which includes the education of youths and adults) is expected to absorb about a quarter of the total lending for education. Though the share of secondary, and especially higher, levels of education will decline, it will still account for about 75% of the total. The implications of the projected program for the Bank's objectives in lending for education will be analyzed later in this paper.

Table 8

Distribution of Education Lending [1]
(Fiscal years)

	1963-71 Actual (%)	1972-74 Actual (%)	1974-78 Projected (%)
By levels			
Primary and basic	5	11	27
Intermediate	72	48	43
Higher	23	41	30
	100	100	100
By curricula			
General and comprehensive	44	43	31
Technical	29	24	23
Agricultural	15	17	24
Teacher training	12	14	12
Health	—	2	10
	100	100	100
By outlay			
Construction	61	49	54
Equipment and furniture	34	44	37
Technical assistance	5	7	9
	100	100	100

[1] Through fiscal 1974, the World Bank and IDA had approved financial assistance for 99 education projects with a total project cost of US$1,936 million and a total lending amount of US$1,059 million. Of this lending, Eastern Africa, Western Africa, Asia (excluding the Middle East), Europe and the Middle East, and Latin America and the Caribbean absorbed 16%, 15%, 27%, 25% and 17%, respectively.

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Objectives of Bank Lending for Education

The Bank seeks to promote balanced educational development based on the following broad principles:

(a) That there should be at least a minimum basic education for all as fully and as soon as available resources permit and the course of development requires.

(b) That further education and training beyond the basic level should be provided selectively to improve quantitatively and qualitatively the knowledge and skills necessary for the performance of economic, social and other developmental roles.

(c) That a national system of education should be viewed as a comprehensive learning system embracing formal, nonformal and informal education and working with maximum possible internal and external efficiency.

(d) That in the interest of both increased productivity and social equity, educational opportunities should be equalized as fully as possible.

Some considerations of particular importance in the pursuit of these objectives follow.

Dealing with Basic/Primary Education

The Bank's interest in basic education is closely related to its efforts in promoting a broader approach to development. Basic education is conceived as a means by which the minimum learning needs of the masses will be met so as to ensure effective participation in the development process by all. Basic education can thus be instrumental in increasing the productivity as well as improving the opportunities of underprivileged groups.

It is expected that most countries, particularly those with already high primary enrollment ratios, will meet the needs for mass education through an expansion of the formal primary system. For those countries, the Bank will give particular attention to curriculum and other reforms which take account of the needs of the many who will not continue beyond the primary cycle.

The Bank will encourage those countries having the lowest primary enrollment ratios and working under severe financial constraints to review and revise their education structures to meet the need for low-cost, minimum, mass education.

In all cases, the Bank will assist in the development of a wide variety of education and training for adolescents and adults, either as follow-up programs for those who have had primary education, or, in the more extreme cases, as a substitute for non-existent primary schools.

The Bank will encourage the integration of basic education with other rural and urban development programs. Education programs may be asked to serve different target groups whose development needs will be met through a combination of assistance programs. In Bank projects, the integration can take place by including education and training in comprehensive rural development or urban settlement projects. The education and training should, however, always be viewed as a part of a total education delivery system.

The Bank must guard against the serious danger of creating prototypes (multipurpose institutions serving whole communities, rural training centers) which are too elaborate and expensive to be replicable on the desired scale. The central purpose of basic education programs is to meet the minimum learning needs of the many within the limits of available resources. Standards for and costs of at least the first generation of institutional models should be consistent with this purpose.

Other important elements mentioned in the second part of this paper which contribute to a broader dissemination of basic and primary education, and to which the Bank will give particular attention, will be: (a) language planning and development for the greater use of mother language(s); (b) the use of electronic media and the production of learning materials for both formal and nonformal basic education; (c) improvement of the capabilities of local managers through appropriate administrative reorganization and/or training; such reorganization and training will often be needed for other sectors of rural development and might be assisted more effectively for all sectors together; (d) an essential corollary of (c) is the localizing of procurement and support through local taxation and other contributions, self-help construction schemes and the multiple use of qualified local people.

In Table 8 we have noted an increase from 11% in 1972-74 to 27% for 1974-78 in the estimated share of the Bank's education lending devoted to primary and basic education. Based on current estimates, the volume of lending for primary and basic education in 1974-78 would equal about $280 million in constant prices. To this figure should be added an estimated $90 million for education components included in rural development and "sites and services" projects. Total lending for primary and basic education may, therefore, reach the $350-400 million level. Though this amount should be manageable, it will challenge the capabilities of both the Bank and its borrowers, given the still highly experimental "state of the art."

The most important contribution the Bank could make during the next four years would be to use the period to "tool up" for a

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substantially greater attack on worldwide educational needs after 1978. This "tooling up" would embrace not only refinements of project criteria, planning, staffing and acquisition of experience within the Bank; it would also include a many-sided effort within the developing countries themselves to increase their capabilities and prepare for a major thrust to be launched in the later 1970's. It would include (a) operational research into demographic, social, geographical and economic conditions related to basic education; (b) development work in curricula, teacher training, institutional models, project design, physical facilities and the use of mass media; (c) planning, policy formation, legislation and budgeting by governments; (d) administrative reorganization and management training necessary to achieve the decentralized, yet coordinated, execution required by a major program; and (e) systematic monitoring and evaluation of ongoing operations.

The effort envisaged here should not be limited to the Bank and its borrowers alone. If the obstacles of mass illiteracy and ignorance are to be lifted from the path of development, the task will demand a common effort by interested educational assistance agencies, almost all of which are already giving the highest priority to meeting the need for basic education. Preliminary steps to form channels for cooperative action are now being taken. These channels can prove to be a potential vehicle for mounting a massive attack upon this most formidable problem of educational development. They can also provide an opportunity for the Bank to help crystallize sentiment for action among agencies and member countries.

The Development of Skills

There will continue to be a shortage of middle- and high-level manpower in specific areas in many developing countries. The Bank will, therefore, continue to support the development of skills to meet the needs of vocational and professional manpower in the urban and rural sectors. The Bank will utilize the experience it has gained in previous lending for the development of skills, and a major part of Bank funds for educational development will continue to flow into this sector up to 1978. The financing will cover secondary and post-secondary institutions, training centers and university institutions in agriculture, industry, science, commerce, management, pedagogy, health and other education and training sectors. The assistance will continue to include reconstruction of buildings, the purchase of equipment, development of curricula, the production and use of learning materials (including textbooks), and staff training. Technical assistance, utilizing local experts where possible, will be included.

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The Bank has financed general secondary education, including comprehensive education projects, in the past. It will continue to do so to the extent that it supports the development of skills and the programs mentioned above. Comprehensive schools may often meet education needs in societies at a fairly advanced stage of development. They are, however, relatively costly, and the experience of Bank-assisted comprehensive schools indicates that the concept might be less relevant in poor countries with low school enrollments. It might sometimes be preferable to replace comprehensive education by a combination of general education and short, accelerated training courses.

The Bank will continue to use manpower analysis in assessing educational and training needs; it will, however, broaden the scope and perspective of such analysis to cover those categories (of skills and population, for instance) not covered by conventional manpower techniques. In this analysis, the Bank will continue to take account of the tendency of many education systems to generate surpluses of educated manpower and, as a result, will point out the need for explicit government policies on rationing and pricing secondary and post-secondary education. Wherever possible, tracer studies will be included in education projects.

The Bank will develop and apply new techniques for cost effectiveness analyses in the choice of alternative forms of vocational training. These techniques will be applied particularly in assessing the advantages and disadvantages of in-plant training institutions, as against the development of formal vocational schools.

The Bank will continue to finance training components in projects in agriculture, tourism, transportation, public utilities and other sectors at the post-basic level of education. Though there is no clear line between such project-related training provided as part of a system development, there are some criteria which can help to determine how to deal with a need for training which has been generated by project financing. Among such criteria are the urgency of the need, the degree of specificity of the skills and the length of the training period. As a general rule, training components attached to projects will result in more experience than if training were conducted as part of a regular education program. Its execution will require more Bank attention and manpower.

Efficiency

The Bank will continue to encourage efforts to increase cost-consciousness in the management of education and support the development of cost-effective education programs and projects. Methods

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of learning which can save money will also be supported. The Bank will, therefore, assist in developing managerial abilities in education, and will provide technical assistance to develop local participation in educational activities in both rural areas and urban settlements.

The Bank will actively promote the best combination of high educational achievement and low costs in three specific ways:

(i) Encourage the application of substantial research findings which indicate that class sizes may be increased without a loss in student learning performance.

(ii) Encourage and finance the local design, production and distribution of learning equipment and textbooks.

(iii) Encourage the hiring of teachers with experience in fields other than education.

The Bank will back, through a systematic use of built-in evaluation systems in education projects, further efforts to identify and eliminate the main causes of high attrition and repetition rates. These evaluation systems can lead to improved curricula and selection, and better teaching and learning methods.

Wherever possible, the Bank will attempt to improve the nutrition of prenatal, infant and school-age children, believing as it does that proper nutrition is a crucial factor in the development of human resources. Such attempts can include improved nutritional education in teacher training colleges, in adult education programs and in the curricula of primary and secondary schools. This approach may be combined with feeding programs in schools.

The Bank will continue to emphasize the financial criteria of education projects and development strategies including:

(a) A sound balance of expenditure between components within the education system and between the education sector and other sectors of development.

(b) The implications of recurrent costs in both plans and projects, and the replicability of experimental activities.

Education and Equity

A final objective of Bank lending for education, as for other sectors, is the improvement of equity, the redressing of imbalances in educational and training opportunities among different geographical, ethnic, social, sex, income and age groups. Providing equality of opportunity is not a program which can be financed in itself; it is, rather, a major criterion which should suffuse all Bank operations.

In its analysis of education systems and policies, the Bank will want to know where the funds really go, who benefits most and how the financial burden is distributed. In some cases, special surveys

may be needed to find the answers. The Bank will assist in such surveys and, based on their findings, will help design programs to improve the distribution of educational services. This help may be forthcoming even if the program is to be financed by others. One such study—in Colombia—has recently been published by the Bank[1]; others will follow.

In project identification and design, the Bank will seek to assess the degree to which education programs contribute to a rational policy balancing equity and other educational objectives such as efficiency and the development of skills. More specifically, the Bank will develop a guidance and monitoring system to determine the beneficiaries of education projects.

Bank Lending Programs and Possibilities

Having outlined the major objectives for the Bank's education lending and having defined the position the Bank would normally take on specific questions, three crucial sets of questions concerning the viability of these proposals arise:

(a) Will developing countries be willing to accept the general and specific policies suggested in this paper? What might the Bank do to encourage their receptiveness?

(b) What are the risks inherent in these policies? Will countries have sufficient managerial capabilities to carry them out?

(c) Are the Bank's own current policies, procedures and lending programs in harmony with the directions and proposals put forth in this paper?

Overall, experience suggests that the innate caution and conservatism of educational establishments will continue and that relatively few countries will undertake the radical changes which many external observers consider necessary. At the same time, there is a growing recognition that significant changes are needed and a willingness to consider, selectively, specific proposals for reform. A small but growing number of countries have begun to look objectively at their total educational systems in terms of both internal and external efficiency. Some factors which may encourage the growth of this highly useful practice of self-examination are suggested here.

Awareness of financial constraints may be a powerful inducement to considering alternative modes of education. For example, three countries—Ethiopia, Tanzania and Peru—which have faced their educational problems resolutely and with imagination were all previously

[1] Jallade, Jean-Pierre. *Public Expenditures on Education and Income Distribution in Colombia. World Bank Staff Occasional Papers, No. 18. Baltimore and London: The Johns Hopkins University Press, 1974.*

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confronted by serious financial problems. Their examples may encourage a critical and objective review of existing systems by many of the poorest countries in the wake of the unfavorable effects of recent economic changes. For the more favored countries where growth prospects have substantially improved, there may be less inclination to experiment or question conventional practices. The need to plan for rapid expansion should, however, compel a searching review of existing conditions.

Change will normally begin through a comprehensive study of the sector as a whole which assesses broadly the degree to which the country's total learning system responds to its developmental objectives and needs. Such an assessment must perforce include a fresh look at accepted developmental objectives and an updating of the estimates of those needs.

These comprehensive sector studies must be undertaken at the initiative of, and carried out by, the country itself if the best results are to be achieved. Technical assistance and guidance may also be needed from the Bank, Unesco or some other source. The Bank has provided financial help for one such study, in Ethiopia, and has also assisted or cooperated in the formulation of such studies in Sierra Leone, Indonesia and the Philippines. It is financing a number of subsector studies, including a review of basic education in Mali and the role of the Koranic schools in Mauritania. During the next four years, we might expect that from eight to 12 countries might initiate comprehensive sector studies with the Bank's financial help. In addition, one can expect the Bank to help in preparing an indeterminate number of more specialized studies.

A second way of encouraging innovative attitudes is through technical assistance in the identification and design of projects as provided by the Bank's Cooperative Programs with Unesco and the U.N. Food and Agriculture Organization (FAO). Under these Cooperative Program agreements, signed in 1964 with Unesco and FAO, the Bank assumes 75% of the costs of a team of specialists in each agency which works exclusively on missions and studies involved in Bank lending. The teams may also complement Bank missions at any stage of the project cycle process, and they may call upon Unesco and FAO staff members outside the Cooperative Programs. As a result, the Cooperative Programs assure the Bank of the special experience of the two U.N. agencies.

Responding to the second question, it must be acknowledged that the risks inherent in embarking on highly innovative policies are substantial. In the face of the uncertainties involved, venturing into the relatively uncharted regions of educational development for rural

dwellers and the poor will seem to many, including the politically accountable leaders of developing countries, to be a risky business indeed. But since the effects of continuing to neglect these needs would certainly be more costly, it is clearly preferable to pursue a prudent, but active, course while seeking to identify and minimize the risks involved.

It has been pointed out frequently in this paper and elsewhere that the major problem of development is management, and especially local management. Many have called for organizational reform, and, in all cases, for intensive training programs of all kinds. That continues to be a major recommendation.

Thirdly, it has been asked if the Bank itself is in a good position to help implement the proposals of this paper. The proposed lending program for 1974-78 allocated $1,075 million in constant prices for Bank/IDA lending to the education sector, compared with actual lending for the period 1969-73 of $947 million. The 1974-78 figure amounts to an increase of about 14%. During the 1974-78 period, 80 projects will be undertaken, compared with 66 projects in 1969-73. This amounts to an increase of 21%. In addition, nearly $350 million for educational and training components is expected to be included in lending for other sectors. This moderate increase is justified, given the rapid expansion of education lending during the previous five years (by nearly four times), the need for additional staff for project-related training and, above all, the experimental nature of some of the new emphases indicated in the lending profile (Table 8). This program would permit the necessary "tooling up" for substantial expansion beginning in about 1978.

In aggregate terms, the distribution of lending as shown in Table 8 does reflect the policy directions suggested here. This contention is generally supported by the content of projects approved for Bank/IDA assistance during fiscal 1974. In the future, however, a substantial increase (to about 27% of the total) in lending for primary and basic education, and a proportional decrease for intermediate and higher education, is projected. Lending for general education, including comprehensive schools, will decline, and support for technical education and teacher training will remain at approximately the same levels. Large increases for education for rural populations (agricultural plus a substantial part of primary and basic) are expected; support for the training of health personnel is expected to rise sharply, too. The estimated increase in technical assistance from 7% to 9% (it may, in fact, go higher) is also significant.

The Bank is making every effort to ensure that an equitable distribution of lending by income levels—both inter-country and intra-coun-

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try—will occur. In drawing up these lending programs, however, the Bank must take account of those factors which tend to limit its ability to act in this regard: differences in a country's absorptive capacity for loans, educational technology, economic sophistication and levels of skills required, not to mention the greater availability of funds for Bank loans than for IDA credits.

Finally, in projects for basic education where capital expenditure is to be minimized and physical facilities are simple and locations widely scattered, international competitive bidding generally will not be appropriate. Greater resort to construction by negotiated contracts, force accounts or some form of self-help involving contributions of labor and materials from the community will be needed. In this connection, if building costs are truly to be low enough to be replicable and if local capabilities are to be brought into play, the Bank and its borrowers might reconsider what is a "proper" building for the Bank to finance. Instead of designing a structure to last 30 or 40 years, there might be many advantages, including those of cost, in designing first generation models which would last for shorter periods.

In some other respects, although no new policy issues appear to be involved, implementation of the policies and programs proposed here will require greater use by the Bank of flexible procedures for financing and procurement. Although those procedures already exist, they have not been fully utilized in the education sector. The Pearson Commission recommended in 1969, with agreement in principle by the Bank, that "greater resources for research and experimentation with new techniques" should be provided by World Bank lending. This was further defined as ". . . loans to finance: (1) research and experimentation with new curricula, methods, structures, materials, and plant design; and (2) the establishment and partial operation of new institutions based on the results." Since then, through its own allocations of money for research, and through loans and credits, the Bank has given increasing support to research and studies leading to improved techniques. But the effort can be greatly expanded. In particular, in order to give momentum to experimentation, the Bank can lend an appropriate part of the total costs of an experiment—both capital and operational—over a stated period of time. This policy should apply in all parts of the educational sector, although in the immediate future it will perhaps be most widely used in basic education, where project models, criteria and standards are still being developed.

In view of the crucial role of the teacher in bringing about educational change (or in failing to do so), the capital and operational costs

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of the training of teachers and administrators—the human infrastructure of education systems—should be financed by the Bank and IDA, as was done in an Indonesian project for which an IDA credit of $13.5 million was extended in June 1973.

Conclusion

The Bank's lending operations in any sector are part of a continuing relationship which is rooted in agreement with its member country upon an overall development strategy and upon individual sector strategies such as education. Such strategies take their direction from the country's own definition of its developmental objectives and aspirations.

A recognition of the sovereign prerogative and the practical necessity for a country to determine its own affairs does not, however, preclude the possibility of a useful and constructive dialogue between it and the Bank. If there is no substitute for the borrower's own judgments regarding political and social issues, it may also be true that from its experience in development financing and its broad awareness of technical alternatives and their outcome in other countries, the Bank may help to illuminate the choices a country faces and help it to make better decisions. The Bank hopes to maintain such a dialogue, beginning with policy and strategy definitions and leading on through its lending operations to the implementation of projects and, ultimately, their evaluation. Through this dialogue, it is hoped there may emerge for each country a unity of purpose and plan between it and the Bank.

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ANNEXES

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Annex 1

Estimated Total Enrollment by Level of Education [1]

(In millions)

	1950	1960	1965	1970
		First Level		
Developed countries	112.4	124.5	129.7	141.8
Developing countries	64.7	118.9	159.6	201.4
Africa	8.5	18.9	25.9	32.4
Asia[1]	53.3	87.7	113.9	138.8
Latin America	15.3	26.9	34.7	43.3
World[1]	177.1	243.4	299.3	343.2
		Second Level		
Developed countries	30.5	50.7	64.5	70.8
Developing countries	7.5	18.2	29.3	42.4
Africa	0.7	2.1	3.6	5.1
Asia[1]	12.7	21.3	30.7	36.3
Latin America	1.7	3.9	6.7	10.3
World[1]	38.0	68.9	93.8	113.2
		Third Level		
Developed countries	5.4	9.1	14.3	20.5
Developing countries	0.9	2.1	3.7	5.5
Africa	0.1	0.2	0.3	0.4
Asia[1]	1.1	4.0	5.0	6.2
Latin America	0.3	0.6	0.9	1.5
World[1]	6.3	11.2	18.0	26.0

[1] Not including the People's Republic of China, Democratic Republic of Korea and Democratic Republic of Vietnam.
Source: *Unesco Statistical Yearbook, 1972.*

Annex 2

Analysis of World Bank/IDA Education Lending, FY1963-74

	FY1963-71		FY1972-74	
	US$ million	%	US$ million	%
A. By levels				
Primary and basic	22.48	5	69.00	11
Intermediate	309.65	72	301.08	48
Higher	99.32	23	257.17	41
	431.45	100	627.25	100
B. By curricula				
General and comprehensive	190.77	44	269.72	43
Technical	126.48	29	150.54	24
Agricultural	63.03	15	106.63	17
Teacher training	51.17	12	87.81	14
Health	—	—	12.55	2
	431.45	100	627.25	100
C. By outlay				
Construction	262.17	61	307.35	49
Equipment and furniture	148.16	34	275.99	44
Technical assistance	21.12	5	43.91	7
	431.45	100	627.25	100

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Annex 3

Student Places Provided or Improved through World Bank/IDA Education Projects, FY1963-74

Student places provided or improved	1963-71		1972-74		1963-74	
	Number	%	Number	%	Number	%
General and comprehensive	553,000	58	458,000	60	1,011,000	59
Technical	250,000	27	144,000	19	394,000	23
Agricultural	73,000	8	82,000	11	155,000	9
Teacher training	66,000	7	81,000	10	147,000	9
Total	942,000	100	765,000	100	1,707,000	100

Annex 4

World Bank/IDA Education Lending by Per Capita GNP of Borrowing Countries, FY1963-74

Fiscal Year	Countries by per capita GNP					Total No.	Total amount	Average amount
	Up to $120	$121-250	$251-750	$751-1,500	Over $1,500			
	—(Number of loans or credits)—						—(US$ millions)—	
1963			1			1	5.0	5.0
1964	1	2				3	17.6	5.9
1965	1	2				3	29.5	9.8
1966	1	1	1	1		4	33.95	8.5
1967	1	3	2			6	51.8	8.6
1968	1	1	3			5	24.2	4.8
1969	2		7	1		10	81.8	8.2
1970		5	3	3		11	79.9	7.3
1971	5	2	6	1		14	107.9	7.7
1972	2	5	4	2	1	14	180.4	12.9
1973	7	3	6	2		18	293.55	16.3
1974	1	1	6	1	1	10	153.1	15.3
Total	22	25	39	11	2	99	1,058.7	
Average amount of loan or credit (US$ millions)								10.7

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World Bank/IDA Education Projects Approved as of June 30, 1974

Fiscal year		Country	Main purpose	(US$ millions) Total project cost	Amount of loan or credit Bank	IDA
1963	1.	Tunisia I	Secondary general, technical and teacher training	9.2		5.0
1964	2.	Tanzania I	Secondary general	6.0		4.6
	3.	Pakistan I	University agricultural, post-secondary technical and teacher training (T.A.)	9.0		4.5
	4.	Pakistan II	University agricultural, post-secondary technical and teacher training (T.A.)	17.0		8.5
1965	5.	Philippines	University agricultural	11.7	6.0	
	6.	Afghanistan	Secondary technical, agricultural and teacher training (T.A.)	4.7		3.5
	7.	Nigeria	Secondary general, technical, adult and teacher training	30.0		20.0
1966	8.	Chile I	Adult training	3.8	2.75	
	9.	Morocco	Secondary general, technical and agricultural	16.2		11.0
	10.	Ethiopia	Secondary general, technical and teacher training	10.7		7.2
	11.	Pakistan III	University agricultural and post-secondary technical (T.A.)	21.7		13.0
1967	12.	Kenya I	Secondary general, technical and teacher training	9.7		7.0
	13.	Tunisia II	Secondary general and agricultural	19.8		13.0
	14.	Jamaica	Secondary general, post-secondary agricultural, technical, adult and teacher training (T.A.)	19.4	9.5	
	15.	Thailand	Secondary technical and agricultural (T.A.)	21.0	6.0	
	16.	Uganda	Secondary general	14.3		10.0
	17.	Malawi	Secondary general and teacher training	7.0		6.3
1968	18.	Malagasy	Secondary general, technical and teacher training	7.2	4.8	
	19.	Nicaragua	Secondary general and teacher training	8.0	4.0	
	20.	Gabon	Secondary general and teacher training	3.6	1.8	
	21.	Sudan	Secondary general, post-secondary agricultural and teacher training (T.A.)	15.4		8.5
	22.	Ecuador	Secondary general, agricultural and technical and teacher training (T.A.)	10.2		5.1
1969	23.	Colombia I	Secondary general	15.2	7.6	
	24.	Chad	Secondary agricultural and teacher training (T.A.)	2.1		1.8
	25.	Trinidad and Tobago	Secondary general and teacher training	18.8	9.4	
	26.	Guatemala	Secondary general, post-secondary agricultural and teacher training	12.6	6.3	
	27.	Guyana	Secondary general and teacher training (T.A.)	10.0	2.9	2.9
	28.	Zambia I	Secondary general, technical and teacher training	36.2	17.4	
	29.	Malaysia	Secondary general, technical, agricultural and teacher training	16.4	8.8	
	30.	Tanzania II	Secondary general and teacher training	7.2		5.0
	31.	Korea	Secondary and post-secondary agricultural and technical (T.A.)	26.8		14.8
	32.	El Salvador	Secondary general, technical and post-secondary agricultural (T.A.)	8.4	4.9	
1970	33.	Cameroon	Secondary general, technical, agricultural and adult and teacher training (T.A.)	14.0		10.5
	34.	Zambia II	University technical and teacher training	7.4	5.3	
	35.	Sierra Leone	Secondary general, technical and teacher training (T.A.)	4.5		3.0
	36.	Chile II	Adult industrial and agricultural training	3.0	1.5	
	37.	Ivory Coast	Primary, secondary general, technical, post-secondary technical, agricultural and adult and teacher training (T.A.)	19.1	11.0	
	38.	Chile III	Secondary agricultural and teacher training (T.A.)	14.0	7.0	
	39.	Kenya II	Secondary technical, university agricultural and adult and teacher training (T.A.)	9.3		6.1
	40.	Colombia II	Secondary general (T.A.)	13.0	6.5	
	41.	China	Secondary and post-secondary technical and agricultural and teacher training (T.A.)	15.0	9.0	
	42.	Pakistan IV	University technical (T.A.)	12.8		8.0
	43.	Spain	Primary, secondary general and teacher training (T.A.)	24.0	12.0	

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Fiscal year		Country	Main purpose	(US$ millions) Total project cost	Amount of loan or credit Bank	IDA
1971	44.	Iran	Primary, secondary general, technical and agricultural, teacher training; and university (education) (T.A.)	41.7	19.0	
	45.	Indonesia	Secondary technical (T.A.)	7.6		4.6
	46.	Greece	Post-secondary technical (T.A.)	24.0	13.8	
	47.	Dominican Republic	Secondary general and teacher training (T.A.)	6.1		4.0
	48.	Tanzania III	Nonformal rural training and post-secondary agricultural (T.A.)	4.7		3.3
	49.	Jamaica II	General secondary, teacher training, vocational training, ITV (T.A.)	28.2	13.5	
	50.	Congo (B)	Secondary general and technical teacher training; nonformal rural education (T.A.)	4.1		3.5
	51.	Ethiopia II	Secondary general and secondary technical and agricultural	13.4		9.5
	52.	Brazil	Secondary technical and agricultural; post-secondary technical (T.A.)	21.0	8.4	
	53.	Chad II	Secondary technical and agricultural	3.1		2.2
	54.	Somalia	Secondary general, technical, teacher training and nonformal agricultural (T.A.)	3.7		3.3
	55.	Turkey	Secondary and post-secondary technical; technical teacher training; nonformal management and adult technical training; science equipment production; mass media (T.A.)	17.9	13.5	
	56.	Senegal	Secondary general and secondary technical and agricultural	2.3		2.0
	57.	Uganda II	Secondary general and technical; post-secondary and nonformal agricultural; health and medical training (T.A.)	10.4		7.3
1972	58.	Ireland I	Secondary general and agricultural; post-secondary technical (T.A.)	33.0	13.0	
	59.	Morocco II	Secondary general and technical, agricultural teacher training, university (agricultural), adult nonformal technical training (T.A.)	13.5		8.5
	60.	Zaire I	Secondary technical, primary and technical teacher training (T.A.)	11.8		6.5
	61.	Jordan I	Secondary general and agricultural; post-secondary technical; teacher training (T.A.)	9.8		5.4
	62.	Singapore I	University (technical) (T.A.)	20.0	9.5	
	63.	Indonesia II	Agricultural secondary, adult training (T.A.)	12.3		6.3
	64.	Nigeria	Post-secondary general, teacher training (T.A.)	27.8	17.3	
	65.	Malaysia II	Secondary technical; university (science); ITV	28.4	15.5	
	66.	Liberia II	Secondary general; university (agricultural); teacher training (T.A.)	9.6		7.2
	67.	Central African Republic	Secondary general; post-secondary technical; teacher training (T.A.)	5.4		3.9
	68.	Thailand II	University (agricultural) (T.A.)	28.3	15.4	
	69.	Spain II	Secondary general; technical teacher training; university (technical) (T.A.)	152.5	50.0	
	70.	Cameroon II	Secondary general and technical; teacher training; nonformal adult technical (T.A.)	11.4		9.0
	71.	Iraq I	Secondary general and technical; post-secondary technical; nonformal adult agricultural and technical training; ITV	19.9	12.9	
1973	72.	Greece II	University engineering and science; teacher training; technical and agricultural secondary; vocational training (T.A.)	43.9	23.5	
	73.	India	Agricultural university, computer center, curriculum development (T.A.)	19.4		12.0
	74.	Trinidad and Tobago II	General secondary, teacher training (T.A.)	19.7	9.3	
	75.	Philippines	Agricultural university, agricultural secondary schools, technical and vocational institutions, development centers (T.A.)	17.7		12.7

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World Bank/IDA Education Projects Approved as of June 30, 1974

Fiscal year		Country	Main purpose	US$ millions: Total project cost	Amount of loan or credit: Bank	IDA
1973	76.	Paraguay	General secondary, technical post secondary (T.A.)	7.3		5.1
	77.	Lebanon	Basic and secondary general, teacher training (T.A.)	15.9	6.6	
	78.	Thailand III	General secondary, university, teacher training (T.A.)	39.0		19.5
	79.	Tanzania IV	Primary, general secondary, medical school (university), technical secondary (T.A.)	14.6		10.3
	80.	Indonesia III	Teacher training, learning materials development (T.A.)	39.2		13.5
	81.	Algeria	Technical and agricultural post secondary and university (T.A.)	10.2	6.0	
	82.	Korea II	Engineering science and school of education at universities, teacher training, agricultural and technical secondary (T.A.)	70.2	23.0	20.0
	83.	Zambia III	Paramedical, health training centers, agricultural school of university, farmer training centers, teacher training, general secondary development (T.A.)	40.1	33.0	
	84.	Bangladesh	University and post secondary agricultural and technical, teacher training (T.A.)	36.4		21.0
	85.	Mali	Technical teacher training, general secondary, technical education, development (T.A.)	5.5		5.0
	86.	Nigeria	General secondary, teacher training (T.A.)	107.4	54.0	
	87.	Upper Volta	General secondary, youth training, development (T.A.)	3.6		2.85
	88.	Costa Rica	General secondary, adult training (T.A.)	9.4	6.2	
	89.	Ethiopia	General secondary, agricultural training, university school of science, teacher training, development (T.A.)	12.7		10.0
1974	90.	Yemen Arab Republic	Secondary general and agricultural, nonformal basis, teacher training (T.A.)	16.95		11.0
	91.	Colombia IV	Primary agricultural, secondary general, post-secondary technical and teacher training, rural development center	33.50	21.2	
		Chad	Supplementary credit to Chad I and II			0.9
	92.	Peru	General Secondary (T.A.)	40.00	24.0	
	93.	Honduras	Vocational and agricultural training centers, teacher training (T.A.)	8.66	3.0	3.0
	94.	Ireland II	Secondary general, post-secondary technical, university agricultural, teacher training (T.A.)	62.84	25.0	
	95.	Mauritania	Secondary technical, community development vocational and teacher training (T.A.)	4.30		3.8
	96.	Singapore II	University (law, arts and science) (T.A.)	42.00	19.5	
	97.	Oman	Teacher training, agricultural secondary, youth training (T.A.)	11.10	5.7	
	98.	Malaysia III	General secondary, post-secondary general and technical, teacher training	41.40	19.0	
	99.	El Salvador II	Primary and basic education, youth training center (T.A.)	24.20	17.0	
	TOTAL			1,936.45	642.3	416.4

(T.A.) = Technical assistance

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Annex 5

Summary of Education Lending by Fiscal Year, 1963-74

Fiscal year	Bank	IDA	Total
1963	–	5.0	5.0
1964	–	17.6	17.6
1965	6.0	23.5	29.5
1966	2.75	31.2	33.95
1967	15.5	36.3	51.8
1968	10.6	13.6	24.2
1969	57.3	24.5	81.8
1970	52.3	27.6	79.9
1971	68.2	39.7	107.9
1972	133.6	46.8	180.4
1973	161.6	131.95	293.55
1974	134.4	18.7	153.1
Total 1963-74	642.25	416.45	1,058.7

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Annex 6

Comparison of Education Efficiencies in Urban and Rural Areas in Latin America

(a) Successful completers and dropouts in primary education

	Total country	Urban	Rural
	Successful completers	Successful completers as % of entrances	Successful completers
Colombia	27.3	47.3	3.7
Dominican Republic	30.4	48.1	13.9
Guatemala	25.4	49.6	3.5
Panama	62.3	80.7	45.3
Average percentage completers	39	51	22

(b) Efficiency of primary education

	Years taken to produce a successful completer				Input output ratio		
	Ideal	Total country	Rural	Urban	Total country	Rural	Urban
Colombia	5	11	66	8	2.4	13.2	1.7
Dominican Republic	6	14	27	9	2.3	4.5	1.6
Guatemala	6	14	70	10	2.3	11.6	1.6
Panama	6	9	12	8	1.5	1.9	1.2

Source: Based on the Unesco report: *The Statistical Measurement of Educational Wastage.*

Annex 7

Availability of Complete Primary Schools in Urban and Rural Areas

Percentage of the total number of primary schools in each category (rural and urban) which offer the complete number of grades

	Number of countries	Complete urban schools as % of total urban schools	Complete rural schools as % of total rural schools
(a) Countries by per capita GNP			
I—Up to $120 (excluding India)	9	53	36
India		57	49
II—$121-250	7	72	32
III—$251-750	16	77	62
IV—$751-1,500	2	89	56
V—Over $1,500	6	100	99
(b) By major regions			
Africa	16	79	54
Asia (excluding India)	9	94	66
India		57	49
South and Central America	10	88	34
Europe	5	98	99

Source: Based on data in *Unesco Statistical Yearbook, 1972.*

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Annex 8

Female Enrollment as a Percentage of Total Primary and Secondary School Enrollments[1]

	1960	1965	1970
Primary schools			
A. Countries by per capita GNP			
I—Up to $120	35%	37%	38%
II—$121-250	42%	43%	44%
III—$251-750	43%	44%	45%
IV—$751-1,500	48%	49%	49%
V—Over $1,500	49%	49%	49%
B. By continents			
Africa	37%	38%	40%
The Americas	49%	49%	49%
Asia[2]	38%	39%	38%
Europe	49%	48%	49%
Oceania	48%	47%	48%
Developed countries	49%	49%	49%
Developing countries	39%	40%	40%
World[2]	43%	44%	44%
Secondary schools			
A. Countries by per capita GNP			
I—Up to $120	19%	23%	28%
II—$121-250	27%	30%	29%
III—$251-750	37%	41%	41%
IV—$751-1,500	45%	44%	45%
V—Over $1,500	47%	47%	48%
B. By continents			
Africa	31%	30%	32%
The Americas	49%	49%	49%
Asia[2]	35%	36%	35%
Europe	45%	46%	47%
Oceania	42%	42%	44%
Developed countries	48%	51%	49%
Developing countries	31%	36%	35%
World[2]	44%	44%	43%

(1) Complete equity between the sexes would imply a female enrollment ratio of 49%.
(2) Not including People's Republic of China and Democratic Republic of Vietnam.
Source: *Unesco Statistical Yearbook, 1972.*

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Public Expenditure on Education as a Percentage of the Budget and GNP

Countries by per capita GNP	1960		1965		1970	
	Budget	GNP	Budget	GNP	Budget	GNP
I—Up to $120	6.7	1.8	9.6	2.3	13.2	2.9
(No. of countries)	(5)	(6)	(12)	(11)	(7)	(6)
II—$121-250	20.0	3.6	21.8	3.2	18.9	3.8
(No. of countries)	(3)	(10)	(14)	(17)	(7)	(7)
III—$251-750	15.3	2.3	14.6	2.9	13.5	3.0
(No. of countries)	(8)	(17)	(15)	(20)	(15)	(13)
IV—$751-1,500	6.1	2.1	8.3	2.2	10.1	3.1
(No. of countries)	(2)	(3)	(5)	(5)	(5)	(8)
V—Over $1,500	12.9	3.8	19.5	5.5	17.8	5.8
(No. of countries)	(4)	(14)	(14)	(14)	(10)	(12)

Public Education Expenditures Per Capita of Population/Pupil

In U.S. dollars. Current prices

Countries by per capita GNP	1960		1965		1970	
	Population	Pupil	Population	Pupil	Population	Pupil
I—Up to $120	1	16	2	21	2	18
II—$121-250	5	33	6	40	9	49
III—$251-750	7	43	9	58	10	57
IV—$751-1,500	17	114	29	164	34	179
V—Over $1,500	67	338	113	504	168	749

Source: Based on data compiled by Unesco.

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Annex 10

School Textbook Production[1]

Countries by per capita GNP	Number of books (000's)	Enrollment (000's)	Textbooks per student
Up to $250			
Ghana	19	1,518	0.01
Cameroon	30	956	0.03
Nigeria	340	3,871	0.08
Uganda	259	768	0.34
Kenya	592	1,404	0.42
Tunisia	1,580	1,070	1.48
Sri Lanka	4,229	2,653	1.59
Egypt	9,694	5,187	1.87
		Average	0.73
$251-1,500			
Chile	1,695	2,345	0.72
Argentina	3,973	4,359	0.91
Malaysia	6,945	2,274	3.05
Singapore	2,396	513	4.67
Spain	30,592	5,879	5.20
		Average	2.91

[1] School textbooks for primary and secondary education.
Source: *Unesco Statistical Yearbook, 1972.*

Annex 11

Education at the First and Second Levels: Student-Teacher Ratios

Countries by per capita GNP	1960		1965		1970	
	First level	Second level	First level	Second level	First level	Second level
I—Up to $120	39	19	42	21	42	21
II—$121-250	42	21	42	24	43	25
III—$251-750	37	15	36	14	37	19
IV—$751-1,500	31	17	30	18	36	15
V—Over $1,500	28	18	25	17	24	16

Source: *Unesco Statistical Yearbook, 1972.*

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